

Digital distortion

How social media platforms are driving climate disinformation in Europe and beyond





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Glossary

AfD	Alternative für Deutschland
ARIJ	Arab Reporters for Investigative Journalism
CAAD	Climate Action Against Disinformation
CCDH	Center for Countering Digital Hate
EU	European Union
EU DSA	EU Digital Services Act
EUR	Euro – EU currency
FPO	Freiheitliche Partei Österreichs
IPCC	Intergovernmental Panel on Climate Change
ISD	Institute for Strategic Dialogue
IPIE	International Panel on the Information Environment
ISD	Institute for Strategic Dialogue
NATO	North Atlantic Treaty Organization
NGO	Non-Governmental Organization
Platforms	Social media platforms, specifically Facebook, Instagram, TikTok, YouTube and X /Twitter
UK	The United Kingdom of Great Britain and Northern Ireland
UN	United Nations
UNFCC	UN Framework Convention on Climate Change
UNFCC COP [X]	UN Framework Convention on Climate Change (UNFCC) [X] Party of the Conferences
USD	United States dollar
VLOP	Very Large Online Platform

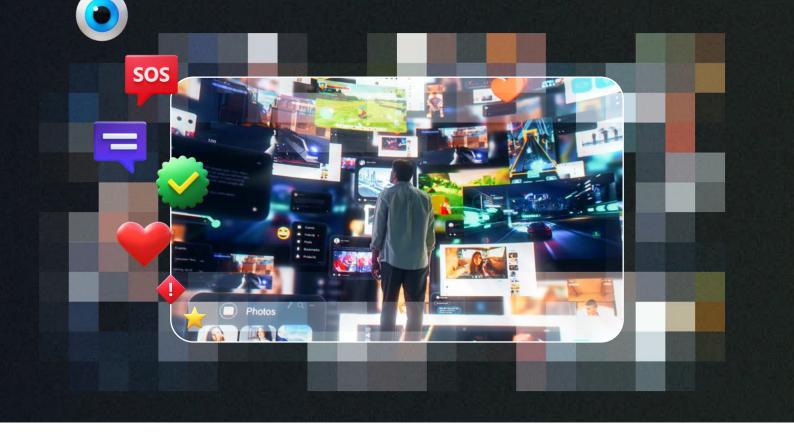
To discuss this report further, please contact:

Rosa Pritchard, Lawyer – Accountable Corporations, rpritchard@clientearth.org

Jonathan White, Lead Lawyer – Accountable Corporations, jwhite@clientearth.org

Andrea Lee, Global Campaigns and Policy Manager, alee@clientearth.org

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Executive summary

The United Nations (UN) has warned that the rise of digital media has "enabled the spread of misinformation, disinformation and hate speech at an unprecedented volume, velocity and virality, risking the integrity of the information ecosystem." Global risk analyses consistently identify disinformation and misinformation among the top risks that the world is facing, and one that the global community is least prepared for: threatening societal cohesion; eroding trust in institutions; and complicating international cooperation.

These concerns have led to international commitments from policymakers to develop regulatory efforts to address these issues. This includes the European Union's landmark <u>Digital Services Act</u> (the "EU DSA"), which was introduced to respond to the growing evidence that online platforms' and search engines' design choices and structures are having profound negative impacts on users and wider society.²

Climate disinformation is being used to obstruct climate action

Human-caused climate change is already leading to widespread negative impacts and related losses and damages to people and the natural environment that we depend on across the globe.

Climate disinformation and misinformation³ have been acknowledged by the IPCC, NATO and the UN Secretary General's office as a threat to our collective ability to mitigate and adapt to the escalating and widespread harms of climate change. Fossil fuel companies, adjacent industries and other vested interests are using sophisticated tactics to undermine decades of work towards building consensus and driving action at the international, national, and local level - while other actors are simply looking to profit from the outrage economy online.

¹ UN, <u>Information Integrity</u>, (accessed 05.11.25).

² European Commission (2020), Impact Assessment for the Proposal for a regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC.

³ As further explained in section 1, disinformation refers to content that is generated and/or disseminated deliberately, with knowledge that it is inaccurate or misleading. Misinformation, on the other hand is spread without knowledge of its inaccuracy.

In the short term, climate disinformation and misinformation put citizens facing the impacts of extreme weather caused or exacerbated by climate change at risk, and hampers government and first responder efforts to provide assistance. In the longer term, they erode public trust and political will to take the action urgently needed to prevent the worst impacts of climate change.

Social media platforms are incentivising and amplifying climate disinformation in the pursuit of advertising revenue

Social media platforms do not just host content created and shared by users: they curate it. Climate disinformation and misinformation thrives on social media platforms, nourished by platform systems in the pursuit of advertising revenue.

Actors with an interest in undermining climate science and delaying climate action are embracing social media to disseminate their messages, benefitting from platform systems that favour disinformation and skew debates to the extreme. This spread of deliberate disinformation, in turn, feeds a spread of unwitting misinformation, as false information derails online conversation about climate change and the transition away from high-carbon activities. The evidence shows that platforms prioritise, amplify and incentivise climate disinformation and misinformation.

Social media platforms are failing to comply with EU DSA obligations to tackle climate disinformation as a systemic risk

The EU DSA requires the largest social media platforms⁴ – including Facebook and Instagram (owned by Meta), TikTok, YouTube (owned by Google) and X/Twitter – to address the 'systemic risks' that stem from their design and functionality. Platforms are legally bound to identify systemic risks, and to put in place effective and proportionate measures to address them.

Our analysis finds that social media platforms have failed to properly identify the systemic risk of climate disinformation and misinformation stemming from their services in their annual risk assessments submitted under the EU DSA. As for measures to effectively mitigate these risks, even where platforms have policies in place purporting to address this issue – as several do – the evidence strongly indicates that these measures are insufficient to address the problem effectively, and multiple examples indicate that such policies are not being implemented. We consider that these failures amount to a breach of the EU DSA.

Robust enforcement of the EU DSA is urgently needed to address the systemic risks of climate disinformation

The EU DSA's systemic risks provisions have been described as "the crown jewel in the DSA's regulatory toolbox", a signal from the EU legislature "that it is no longer acceptable to optimise the design of services at the expense of everyone else to achieve the fastest possible growth and profit". The costs and harms of climate change, borne by society as a whole, and exacerbated by climate disinformation and misinformation, are rapidly becoming prohibitive. As we argue in this briefing, social media platforms have demonstrated that they cannot be relied on to develop, implement and enforce effective measures to deal with climate disinformation and, as such, the intervention of enforcement is necessary and urgent to ensure that they do.

⁴ As well as other online platforms, such as online market places, and online search engines.

⁵ Martin Husovec (2024), Principles of the Digital Services Act (Oxford University Press).

Introduction to online climate dis/misinformation

Human-caused climate change is already leading to widespread negative impacts and related losses and damages to people and the natural environment that we depend on across the globe. Increasing extreme weather and climate events have exposed millions of people to acute food insecurity and reduced water security. More frequent and intense heatwaves, droughts, heavy precipitation, tropical cyclones and floods are destroying people's lives, homes and livelihoods, as well as public and private infrastructure – with 2024 seeing the highest number of climate-related new displacements of people recorded for the past 16

The annual global mean surface temperature has already reached 1.1 degrees Celsius above pre-industrial levels in 2011-2020⁹ and 2024 was likely to be the first year to go over 1.5 degrees. A single year does not mean that the Paris Agreement's goal of limiting the temperature increase to 1.5 degrees Celsius is out of reach. However, alongside the very tangible impacts of climate change that we are already suffering, it should provide a clear wake-up call that we need to see a step up in climate action from governments and across all economic sectors.

years, further exacerbating food crises and causing massive economic losses.8

1.1. Defining 'climate dis/misinformation' and 'social media platforms'

The UN has warned that the rise of digital media has "enabled the spread of misinformation, disinformation and hate speech at an unprecedented volume, velocity and virality, risking the integrity of the information ecosystem". In a 2025 UN global survey of stakeholders from government, the private sector, civil society and academia, "mis- and disinformation" has been identified as the third most important global risk – out of 28 risks from across the economic, environmental, political, social and technological categories – and fourth in terms of risks that the global community is least prepared for. According to the World Economic Forum's Global Risks Report 2025, Misinformation and disinformation have emerged as the top short-term global risks for the second consecutive year, threatening societal cohesion, eroding trust in institutions, and complicating international cooperation.

More specifically, climate disinformation and misinformation have been acknowledged by the UN Secretary General's office, ¹⁵ NATO¹⁶ and the IPCC¹⁷ as a threat to our collective ability to mitigate and adapt to the escalating and widespread harms of climate change.

Climate disinformation and misinformation can be described as deceptive or misleading content that threatens efforts to mitigate and adapt to climate change and respond effectively to climate-related harms.¹⁸

⁶ IPCC (2023), Climate Change 2023: Synthesis Report. Summary for Policymakers.

⁷ Ibid.

⁸ World Meteorological Organization (2025), State of the Global Climate 2024.

⁹ IPCC (2023), Climate Change 2023: Synthesis Report. Summary for Policymakers.

¹⁰ World Meteorological Organization (2025), <u>State of the Global Climate 2024</u>.

<sup>UNFCC, <u>The Paris Agreement</u>, (accessed 05.11.25).
UN. Information Integrity, (accessed 4 November 2025).</sup>

¹² UN, Information Integrity, (accessed 4 November 2025

¹³ UN (2025), UN Global Risk Report.

¹⁴ World Economic Forum (2025), Global Risks Report 2025.

¹⁵ UN Secretary General (2023), Our Common Agenda - Policy Brief 8: Information Integrity on Digital Platforms.

¹⁶ NATO (2024), NATO Climate Change and Security Impact Assessment, Third Edition 2024.

¹⁷ IPCC (2022), Climate Change 2022; Impacts, Adaptation and Vulnerability. Working Group II contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

¹⁸ UN Development Program (2025), Explainers: What are climate misinformation and disinformation and how can we tackle them?, (accessed 05.11.25).

Climate *dis*information is generally understood to be disseminated intentionally, with knowledge that it is misleading or inaccurate, whereas *mis*information refers to information shared without malicious intent or knowledge of inaccuracy. In this briefing, we refer to 'climate dis/misinformation' broadly, except in circumstances where it can be assumed that the source of the information has intent to deceive or mislead. In these cases, we refer to 'climate disinformation.'

References to 'social media platforms' or 'platforms', in this briefing, refer to Facebook and Instagram (both owned by Meta), TikTok, YouTube (owned by Google) and X (formerly Twitter, and accordingly, referred to X/Twitter). These platforms meet the thresholds of 'Very Large Online Platforms' in the EU's Digital Services Act (the "EU DSA"), and, as such, are subject to the EU DSA's 'systemic risk' obligations. We focus on these platforms – to the exclusion of others because they have been assessed to be those showing the highest prevalence of mis/disinformation. We note that these platforms offer different features, formats and emphasis on different types of content. Nonetheless, they share the same broad design features and structures described in this briefing and therefore, to the best of our knowledge, the conclusions in this briefing apply to them all unless expressly stated otherwise.

1.2. Evolving climate disinformation narratives

Online climate dis/misinformation is a relatively recent manifestation of an historic issue, that has unfolded over decades, with roots in the fossil fuel industry's efforts to deny the existence of climate change. 21 Experts observe that climate disinformation narratives have evolved over time. Whereas climate disinformation may have once taken the form of denial that global warming is occurring, or that it is caused by human activity, "climate change scepticism and disinformation has moderated its positions, placated its tone, and adapted to the surrounding environment." Strategies are now "more subtle and sophisticated". 22 According to the Center for Countering Digital Hate (CCDH – a non-profit organisation working to stop the spread of online hate and disinformation), "New Denial" includes narratives such as "[t]he impacts of global warming are beneficial or harmless", "[c]limate solutions won't work" and "[c]limate science and the climate movement are unreliable". 23 In particular, these are the narratives that have been observed to flourish on digital platforms. 24

In some cases, such as dis/misinformation about policies intended to mitigate and/or adapt to climate change, climate change may not be evoked directly. Nevertheless, the content can be categorised as climate dis/misinformation due to the negative impacts the false information has or could have on climate mitigation, adaptation and preparedness for climate-related events in the short and long term. As an example, response efforts to extreme weather events caused or exacerbated by climate change may be undermined by dis/misinformation that weakens/breaks the public's trust in government institutions, including emergency services,^{25,26} as well as climate science and experts.²⁷

¹⁹ Specifically, LinkedIn, Pinterest and Snapchat. Regarding LinkedIn, it is worth noting that a recent study on climate dis/misinformation on the platform found evidence of "substantial interaction with misinformation on the platform". However, this was the first study of this kind: see Ripple Research (2024), An Investigation into Climate Change Misinformation on LinkedIn. Pinterest, on the other hand, announced a ban climate dis/misinformation (across all content and ads) on the platform in 2022; see Pinterest (2022), Combating climate misinformation on Pinterest, (accessed 05.11.25).

²⁰ Science Feedback et al. (2025), Measuring the State of Online Disinformation in Europe: First report of the SIMODS project – Structural Indicators to Monitor Online Disinformation Scientifically.

²¹ IPIE (2025), Facts. Fakes, and Climate Science: Recommendations for Improving Information Integrity about Climate Issues – Summary for Policymakers – documents the fossif fuel industry's long-term denial of anthropogenic climate change and its evolving strategy of spreading misleading narratives to delay climate action. Also see, IPIE's press release, detailing how corporations that have in past decades denied climate science are now engaging in more sophisticated disinformation.

 $^{22 \}quad \text{EU DisinfoLab (2023), } \underline{\text{Pon't stop me now: } \textbf{The growing disinformation threat against climate change, } (accessed 05.11.25).}$

²³ CCDH (2024), The New Climate Denial: how social media platforms and content producers profit by spreading new forms of climate denial

²⁴ Nicolosi, E., et al (2025), The new denial: climate solution misinformation on social media, Global Sustainability.

²⁵ See article by Maldita Ataques v desinformaciones contra Cruz Roja tras el paso de la DANA, 15.11.24, (accessed 05.11.25) showing dis/misinformation narratives that went viral during the October-November 2024 floods in Valencia, Spain, targeting the Spanish Red cross.

²⁶ López-Carrión, A.E. and Llorca-Abad G. (2025), <u>Desinformación Durante La Crisis Producida Por La DANA De 2024 En España: Análisis, características, tipologías Y Desmentidos</u>, Revista Mediterránea De Comunicación 16 (2):e29303.

²⁷ Also during the Valencia flooding of 2024, dis/misinformation narratives circulated undermining that climate change had caused/aggravated the floods, instead proposing conspiracy theories that have since been debunked – see Maldita (2025), No. este vídeo no es de una presa en la Comunidad Valenciana soltando aqua en la DANA, 19.11.25, (accessed 05.11.25).

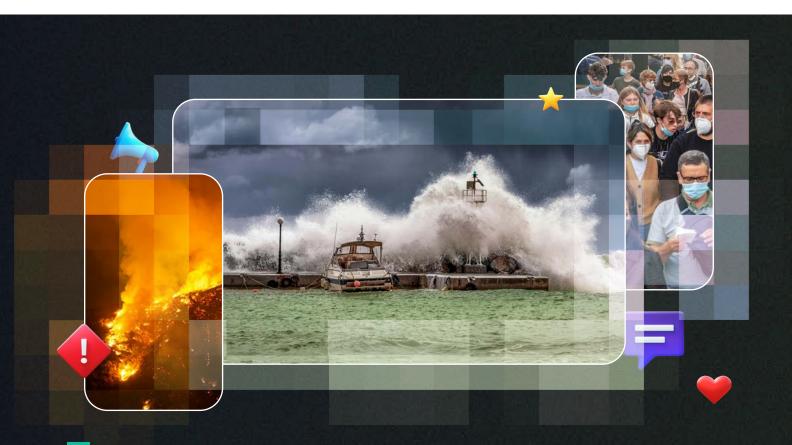
Climate dis/misinformation can also include 'greenwashing'. Greenwashing can take the form of false publicisation of activities as being supportive of climate goals where they actually contribute to climate warming or contravene scientific consensus on mitigation and adaptation, and communications designed to 'green' the public image of highly polluting activities in efforts to maintain their social license to operate, perpetuate demand for products and/or garner public support.²⁸

Studies have noted significant overlap between actors disseminating climate dis/ misinformation and other forms of dis/misinformation on different issues. For example, investigative journalism outlet DeSmog found that US groups engaged in climate-science denial were also found to be disseminating disinformation downplaying the risks of the COVID-19 pandemic.²⁹ Experts on online climate dis/misinformation in the European context have found that "common themes are the use of conspiracy theories to question the motivations behind the green transition, the portrayal of climate initiatives as "elitist" and accusations that proponents manipulate public opinion with "alarmist" rhetoric while failing to practise what they preach."³⁰

1.3. The impacts of climate dis/misinformation: Distract, derail and delay

Overall, there is increasing evidence that climate dis/misinformation threatens society's ability to make and implement effective decisions to mitigate and adapt to climate change, and respond effectively to extreme weather events, which are growing in frequency and/or severity across Europe and beyond as a result of climate change. ^{31, 32} Below, we set out key examples of how these impacts manifest over short, medium and longer timeframes.

- 28 InfluenceMap (2021), Climate Change and Digital Advertising: The oil and gas industry's digital advertising strategy.
- 29 DeSmog (2020), Meet the Climate science deniers who downplayed COVID-19 risks, (accessed 05.11.25).
- 30 de Nadal, L. (2024), From Denial to the Culture Wars: A Study of Climate Misinformation on YouTube, Environmental Communication
- 31 European Environment Agency (2025), Europe's environment and climate: knowledge for resilience, prosperity and sustainability, EEA Report 11/2025.
- 32 World Meteorological Organization (2025), <u>State of the Global Climate 2024</u>.



Hindering emergency responses to save lives during extreme weather events

The negative impacts of climate dis/misinformation manifest over short, medium and longer timeframes. As with other harmful dis/misinformation issues (such as the notorious role that Facebook played in atrocities in Myanmar)33 the impacts of online climate dis/misinformation are particularly acute in times of crisis. For example, dis/misinformation that in recent years has proliferated in the wake of extreme weather events caused by climate change has been found to target the actions of emergency responders, the causes of extreme weather events and the distribution of aid.³⁴ A study by CCDH found that X/Twitter posts of a wellknown conspiracy theorist during the destructive wildfires in Los Angeles in January 2025 received over 400 million views - "more than the combined viewership of relevant posts from ten major news outlets and ten key emergency response organizations".35 This included an unsubstantiated claim that the Federal Emergency Management Agency was confiscating food, which was refuted by local officials.36

The reported intensity of climate dis/misinformation on social media platforms during extreme weather events³⁷ should be considered a priority issue because of the large scale and rapid rise of extreme weather events.³⁸ This is of particular relevance in Europe as the fastest-warming continent in the world.³⁹ Downpours and extreme precipitation are increasing in severity and various regions are seeing catastrophic floods. Increasing temperatures and heatwaves are causing more severe droughts and wildfires, as well as affecting people's health. In the EU, 240,000 deaths and economic losses of assets estimated at EUR 738 billion have been caused by weather and climate-related extreme events between 1980 and 2023.40

Viral dis/misinformation during extreme weather events has been found to put those affected at immediate risk of harm. A recent report on extreme weather dis/misinformation by the CCDH highlighted how the spread of "inaccurate information" during an acute weather crisis can put lives at risk, misleading people about the danger they are in", as well as "endanger first" responders, disrupt life-saving decisions, and mislead people about the aid that they need".41

In the case of the devastating flooding that occurred in Valencia, Spain, in 2024, causing widespread destruction in the region and resulting in 237 confirmed deaths, 42 disinformation narratives not only contained false information about the causes of the weather event, undermining or even explicitly denying the link to climate change,⁴³ but also spread false information that created significant challenges for emergency responders.⁴⁴ Research by Maldita (a Spanish fact checking non-profit organisation) and Al Forensics (a European nonprofit organisation that studies algorithms) studied content relating to the flooding posted on TikTok and YouTube in the month following the disaster and found significantly higher levels of engagement with content containing or discussing climate dis/misinformation than information on the flooding generally, suggesting that "[d]isinformation is derailing online discussions about extreme weather and events, and likely drowning out helpful and informative content in crisis situations".45

³³ Amnesty International (2022), The Social Atrocity: Meta and the Right to Remedy for the Rohingya.

³⁴ In its 2025 report, Extreme Weather: How a storm of false and misleading claims about extreme weather events spread unchecked on social media putting lives at risk the CCDH found that "[f]alse and misleading claims" relating to extreme whether events that took place in the US in 2023/2024 (including the Los Angeles wildfires and Hurricane Helene) "targeted the actions of emergency responders, the causes of extreme weather events, and the distribution of disaster relief aid

³⁵ CCDH (2025), Extreme Weather: How a storm of false and misleading claims about extreme weather events spread unchecked on social media putting lives at risk

³⁶ Ibid.

³⁷ Reuters Institute for the Study of Journalism (2025), Watching chaos through a screen: How social media is changing the way we follow

³⁸ World Meteorological Organization (2025), State of the Global Climate 2024.

³⁹ Copernicus Climate Change Service and World Meteorological Organization (2025), European State of the Climate Report 2024, (accessed 05.11.25)

⁴⁰ European Environment Agency (2025), Europe's environment and climate: knowledge for resilience, prosperity and sustainability, EEA Report 11/2025.

⁴¹ CCDH (2025). Extreme Weather: How a storm of false and misleading claims about extreme weather events spread unchecked on social media putting lives at risk.

⁴² La Moncloa (2025), Info DANA: Actualización de datos del Gobierno de España, 13.10.25, (accessed 05.11.25). 43 Maldita (2024), DANA and floods in Spain: Disinformation narratives and conspiracy theories, 4 Nov 2024, (accessed 05.11.25).

Cruz Roja (Red Cross, Spain) (2025), Estamos a tiempo de impedir que el modelo de sociedad humanitaria que tanto nos ha costado construir desaparezca para siempre 07.10.25, (accessed 05.11.25).

⁴⁵ Maldita and Al Forensics (2025), Truth be Dammed: One year after the Valencia floods, a deluge of disinformation - A study on climate dis/misinformation on YouTube and TikTok

Undermining public support for climate action

In addition to the acute, short-term risks of climate dis/misinformation during such events described above, dis/misinformation serves as a distraction from the most crucial underlying message to be taken from these events: the need for climate action. As Greek fact-checking organisation Ellinka Hoaxes notes in relation to the wildfires that took place in Greece in May 2024, "[w]ell-informed societies and policymakers are prerequisites for adaptation policies and actions towards climate change and wildfire management. Understanding the connection between climate change and droughts [...] should be a priority. However, these efforts are often undermined by the spread of misinformation and disinformation during fire seasons".⁴⁶

Cumulatively, climate dis/misinformation erodes the public mandate to take effective climate action, threatening our ability to respond to climate change effectively at the most critical juncture for doing so. This has been widely recognised by authoritative commentators internationally. The IPCC finds that dis/misinformation online has resulted in public misperception of climate risks and has polarised public support for climate action, denying and blocking mitigation.⁴⁷ The UN Secretary General's office states that climate dis/misinformation "is undermining the urgent transition to cleaner forms of energy production, narrowing the closing window to deliver a sustainable future for all."⁴⁸ Research in the US has also shown that "Americans from all walks of life systematically underestimate public concern about climate change and policy support over a range of climate policies."⁴⁹ This "could lead people to falsely conclude that the vocal minority who dismiss climate change are representative of broader public opinion",⁵⁰ which undermines collection action to address the problem.⁵¹

Obstructing specific climate policy interventions

Together with the erosion of public support in favour of climate action at a higher level, climate dis/misinformation has also proven an obstacle to the swift or successful adoption of specific policy interventions on climate.

A 2024 report published by the Global Covenant of Mayors for Climate & Energy, warns that climate dis/misinformation "undermines the ability of mayors and public official to implement climate policies". ⁵² In some cases, this has included sustained, coordinated attacks on climate policies using false and misleading information. As noted by the Mayors of London and Paris, Sadiq Khan and Anne Hidalgo, "online disinformation campaigns have repeatedly targeted efforts to promote active travel, reduce air pollution by reducing car use and expand clean energy. [...]. As a result, policies designed to clean the air and protect public health have been distorted into culture war flashpoints". ⁵³

Analysis by Climate Action Against Disinformation (CAAD – a global coalition of non-governmental organisations (NGOs) working to combat climate dis/misinformation), has identified how these tactics have been used at both a national and regional level to obstruct climate action. This includes the weakening of German legislation that would have promoted the uptake of heat pumps, and the EU's flagship Nature Restoration Law that "was nearly defeated after widespread misinformation spread across the region", 54 with political groups using social media to disseminate false and misleading arguments. 55

⁴⁶ Ellinika Hoaxes (2024), Denialism in Italy, Spain and Greece stemming from drought, floods and forest fires (accessed 04.11.25).

⁴⁷ IPCC (2022), Climate Change 2022; Impacts, Adaptation and Vulnerability, Working Group II contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

⁴⁸ UN, Information Integrity, (accessed 05.11.25).

⁴⁹ Sparkman, G., et al. (2022), Americans experience a false social reality by underestimating popular climate support by nearly half, Nature Communications 13, 4779 (2022).

⁵⁰ Ibid.

⁵¹ Ibid.

 ⁵² Global Covenant of Mayors for Energy & Climate (2024), <u>Addressing Rampant Climate Disinformation</u>.

⁵³ Sadiq Khan and Anne Hidalgo (2025), In London and Paris, we've experienced vicious backlash to climate action. But we're not backing down, The Guardian, 23.06.25, (accessed 05.11.25).

⁵⁴ CAAD (2023), Deny, Deceive, Delay (Vol.3): Climate information integrity ahead of COP28.

⁵⁵ Roger Harrabin, <u>EU passes nature restoration law in knife-edge vote</u>, The Guardian, 12.0723, (accessed 05.11.25).

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Who and why: the originators of climate disinformation

The main sources of climate dis/misinformation on social media platforms appear to be limited to a relatively small number of categories of actors: (i) fossil fuel companies and adjacent industries; (ii) politicians and political parties; (iii) interest/lobby groups and think tanks; (iv) states and state-affiliated actors; and (v) individuals/groups that "profit from the outrage economy online". 56 More detail about each of these sources of climate dis/misinformation is set out below.

Fossil fuel companies and adjacent industries

According to CAAD, "[t]he fossil fuel industry has engaged in a dual deception of the public. Companies in this sector have, on the one hand, employed diverse techniques to deny the reality of climate change, to obscure their own responsibility, and to obstruct or delay mitigating measures. On the other hand, the same companies have deployed so-called greenwashing to portray themselves as environmentally sustainable enterprises." ⁵⁷

The fossil fuel industry has a long and well-documented history of promulgating false and misleading information about climate change, with detailed investigations and studies tracing the existence and effect of these narratives as far back as 1980.⁵⁸ Research by InfluenceMap (a non-profit think tank that analyses how business and finance are impacting the climate crisis) shows that, more recently, fossil fuel companies have wholeheartedly embraced the opportunities presented by social media to reach audiences with false or misleading narratives on climate change.⁵⁹

A primary means for achieving this is using paid-for advertising on social media. Studies into fossil company social media advertising show enormous spend (and even then, do not capture full amounts due to large, structural gaps in platform transparency over the advertising they show).⁶⁰

Fossil fuel company climate-related commercial advertising fit into two broad camps: messaging around climate change (for example, narratives tying the production of oil and gas to energy independence and leadership); and corporate greenwashing (i.e. efforts to portray themselves as environmentally sustainable enterprise, or exaggerate the benefit of a particular product or initiative). InfluenceMap has found that "the messaging included in these ads is misaligned from the science of climate change according to the Intergovernmental Panel on Climate Change's and the International Energy Agency's analyses on reaching net zero."61

⁵⁶ CAAD (2023), Deny, Deceive, Delay (Vol.3): Climate information integrity ahead of COP28.

⁵⁷ IPIE (2025), Information Integrity about Climate Science: A Systematic Review. Synthesis Report 2025.1.

For Sil fuel-linked corporations have long engaged in disinformation campaigns to undermine trust in climate science and the credibility of experts calling for action. These efforts include targeted lobbying, strategic media messaging, and casting doubt on scientific consensus (see: Oreskes, N. & Conway, E. (2011), Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming, Isis, Vol. 102, No. 3, September 2011; IPCC (2022), Climate Change 2022: Impacts Adaptation and Vulnerability. Working Group II contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change; and Bonneuil, C., et al. (2021), Early warnings and emerging accountability: Total's responses to global warming, 1971–2021, Global Environmental Change, Volume 71, November 2021).

⁵⁹ InfluenceMap (2021), Climate Change and Digital Advertising: The oil and gas industry's digital advertising strategy.

⁶⁰ The data disclosed by platforms around advertising varies between platforms. For Meta, only data on ads about 'politics and elections' is disclosed. This means the full spectrum of ads placed by fossil fuel companies containing climate dis/misinformation is not covered. See: InfluenceMap (2021), Climate Change and Digital Advertising: The oil and gas industry's digital advertising strategy.

⁶¹ InfluenceMap (2021), Climate Change and Digital Advertising: The oil and gas industry's digital advertising strategy.

There is also evidence that fossil fuel companies are directly paying social media accounts and channels ('influencers') with a sizeable number of followers and/or reach to espouse views on climate change or promote products. Experts note these influencer marketing tactics are not limited to oil and gas industries but also extend to "fossil fuel interests beyond just fossil fuel producers themselves", such as car companies and airlines.

Political parties and politicians

In the European context, the International Panel on the Information Environment (the IPIE – an international consortium of researchers analysing and advising on threats to the information environment) finds right-wing populist parties to have "actively contraven[ed] climate science" in their communications, highlighting in particular Spain's Vox Party, Germany's Alternative für Deutschland (AfD) and France's Rassemblement National.⁶⁴ A 2024 report compiled and published by UK NGO Hope not Hate concludes that Reform UK, the AfD and Freiheitliche Partei Österreichs (FPO) Austria "do not engage with the vast body of scientific evidence on climate change or debate effective mitigation strategies", noting that the AfD "openly rejects anthropogenic climate change in its manifesto" and that the FPO "promises to criminalise dissent by imposing 'strict penalties' on 'deluded' climate activists".⁶⁵ These parties are noted for intensive use of social media platforms to gain support and publicity, ⁶⁶ including through disseminating polarising and misleading narratives around climate change.⁶⁷

Interest/lobby groups and think tanks working in support of industry sectors and political interests

Many political and economic actors seek to influence through establishing and funding interest groups, associations lobbies and think tanks, even where these "[portray] themselves as independent and neutral institutions."68

A notable example is US conservative think tank The Heartland Institute, which has been identified by DeSmog as being "at the forefront of denying the scientific evidence for manmade climate change." ⁶⁹ In 2018, it was reported that the Institute shifted its narratives on climate change from denial to "economic and moral arguments to advance policies that bolster domestic fossil fuel production". ⁷⁰ According to media investigations, it has also established a new European base in London in 2024⁷¹ and, over the last few years, has been working with European MEPs to campaign against environmental legislation. ⁷² The Heartland Institute no longer discloses its sources of funding but has historically received financial support from fossil fuel companies, ⁷³ demonstrating the degree of overlap between different political and economic actors in the climate domain. ⁷⁴

Further examples of think tanks associated with climate disinformation in the EU, identified by a European study, include Institut Économique Molinari, from France, and the Instituto Juan de Mariana, from Spain.⁷⁵ Another study found that European think tanks "that take"

⁶² AFP (2023), Oil firms pay Instagram, TikTok influencers for ads, France24, 30.08.23, (accessed 05.11.25).

⁶³ Supran, G., and Hickey, C. (2022), Three Shades of Green(washing): Content Analysis of Social Media Discourse by European Oil, Car. and Airline Companies, Working Paper, September 2022.

⁶⁴ IPIE (2025), Information Integrity about Climate Science: A Systematic Review. Synthesis Report 2025.1.

⁶⁵ Ibid

⁶⁶ For example, Vox is described as having used social media in an "innovative" manner "to bypass hostility from mainstream media outlets" and garner support among young votes (see de Nadal, L. (2024), From Denial to the Culture Wars: A Study of Climate Misinformation on YouTube, Environmental Communication). Analysis on the AfD's social media artsets by describes the party as "mak[ing] use of social media as much as possible and hav[ing] its content go viral" (see: Medina Serrano, J.C., et al (2019), The Rise of Germany's AfD: A Social Media Analysis, Conference Paper).

⁶⁷ See, for example, this post on Facebook from by AfD member and member of the Bundestag, Stephan Protschka: https://www.facebook.com/Protschka.Stephan/
https://www.facebook.com/Protschka.Stephan/</a

⁶⁸ IPIE (2025), Information Integrity about Climate Science: A Systematic Review. Synthesis Report 2025.1.

⁶⁹ DeSmog, <u>Climate Disinformation Database: The Heartland Institute</u>, (accessed 05.11.25).

⁷⁰ Katie Worth (2018), In Shift, Key Climate Denialist Group Heartland Institute Pivots to Policy, PBS FRONTLINE, 02.11.18, (accessed 05.11.25).

⁷¹ DeSmog Climate Disinformation Database: The Heartland Institute, (accessed 05.11.25).

⁷² Helena Horton et al. (2025), Revealed: US Climate Denial Group Working with European Far-Right Parties," The Guardian, 22.0125 (accessed 05.11.25).

⁷³ DeSmog, Climate Disinformation Database: The Heartland Institute, (accessed 05.11.25).

⁷⁴ IPIE (2025), Information Integrity about Climate Science: A Systematic Review. Synthesis Report 2025.1.

⁷⁵ Almiron, N., et al. (2020), <u>Dominant counter-frames in influential climate contrarian European think tanks</u>, Climatic Change 162, 2003-2020 (2020).

an obstructionist stance towards environmental policies" – including the aforementioned examples – "attach considerable importance to issues related to the climate crisis within their digital strategy" and are "purveyors of disinformation".⁷⁶

Governments/states and their affiliates

A report by the IPIE found that governments and states "have been found to participate in disrupting information integrity about climate solutions".⁷⁷ This may include greenwashing, such as exaggerating their own efforts to address climate change,⁷⁸ or disseminating messaging undermining climate science and policies with inaccurate or misleading information. For example, a 2025 investigation by Arab Reporters for Investigative Journalism (ARIJ) and Code for Africa identified thousands of X/Twitter accounts "engaged in an orchestrated effort to elevate Arabic-language hashtags that frame climate change as a hoax".⁷⁹ The accounts mainly originated in Kuwait, Saudi Arabia and Iraq, and the study found that virality "spiked at key moments tied to global environmental events" such as the Bonn Climate Change Conference.⁸⁰ The analysis showed that some accounts belonging to people holding official positions in Kuwait and Saudi Arabia were actively involved in climate disinformation campaigns.⁸¹

Similarly, ahead of the UN Framework Convention on Climate Change (UNFCC) 28th Party of the Conferences (COP28) in Dubai, an academic researcher identified over a hundred fake Twitter accounts that were being used as part of a coordinated effort to greenwash the UAE's climate record and counteract criticism of the host nation. ^{82,83,84} These accounts, created primarily in early 2022, featured fake profile pictures and similar biographies, often praising the head of the Abu Dhabi National Oil Company and echoing UAE foreign policy messaging. Digital disinformation expert Marc Owen Jones described the campaign as "highly organized",

80 Ibi

⁸⁴ Marc Owen Jones (2025), Lessons from the Digital Coalface in the Post-Truth Age: Researching the Middle East Amid Authenticity Vacuums, Transnational Repression & Disinformation, Daedalus, Spring 2025.



⁷⁶ Moreno-Cabanillas, A., et al. (2024), <u>Digital Disinformation Strategies of European Climate Change Obstructionist Think Tanks</u>, Frontiers in Communication, Volume 9 - 2024

⁷⁷ IPIE (2025), Information Integrity about Climate Science: A Systematic Review. Synthesis Report, 2025.1.

⁷⁸ The IPIE gives the example of the US Navy, having "engaged in greenwashing by presenting itself as the "Great Green Fleet," (see: IPIE (2025), Information Integrity about Climate Science: A Systematic Review. Synthesis Report 2025.1).

⁷⁹ Muhammad Tolba and Mariam Shenawy (2025), Report: Coordinated Social Media Campaigns from Oil-rich Arabic States Spread Climate Denial, OCCRP, 04.08.25, (accessed 05.11.25).

⁸¹ Mohamed Tolba (2025), Cyberstorm: "Petroleum accounts" lead disinformation campaigns on climate change, ARIJ, 23.07.25, (accessed 05.11.25).

⁸² Fiona Harvey (2023), Fake social media profiles wage "organised" propaganda campaign on Cop28, Climate Change News, 06.06.23 (accessed 05.11.25).

⁸³ CarbonCopy (2023) Editorial: Research identifies bots engaged in greenwashing during COP28, CarbonCopy, 11.12.23, (accessed 05.11.25).

with accounts strategically defending the UAE and attempting to suppress negative climate narratives.⁸⁵ Although the COP28 team condemned such activities as unacceptable, they did not confirm any direct involvement by UAE authorities.⁸⁶

The role of Russia and Russian state affiliated actors in the dissemination of climate dis/misinformation online is also consistently highlighted, including by the IPIE⁸⁷ and NATO. The latter finds Russia "to be pushing climate denialism across the Alliance, all while actively attempting to derail climate change mitigation policies and renewable energy investments". **

Kremlin-backed outlets RT and Sputnik have been found to be notable, active sources of climate dis/misinformation. **

Russian state affiliated actors have also been found to fund groups, channels and accounts active on social media that disseminate climate dis/misinformation. **

To rinstance, US-based media outlet Tenet Media – which has been repeatedly called out for climate dis/misinformation content including climate denial – was formally indicted in 2024 for receiving partial funding from a Russia-based influence operation. **

The latter finds Russia and NATO. The latter finds and NATO. The latter finds and NATO. The latter finds also proved the IPIE** and NATO. The latter finds and

In most cases, the interests of states in disseminating climate dis/misinformation appears to lie in their own reliance on fossil fuels and income from extracting from fossil fuels. Russia has a clear interest in "[keeping] Europe hooked on gas", decelerating renewables deployment in Europe. 92,93 However, as noted by CAAD, in some cases they also produce content that serves to "highlight and compound societal divisions", with Russian state content "[exploiting] a range of positions, many of them contradictory" to suit the context. 94

Individuals and groups profiting from 'the outrage economy' online

This final group can be seen as a product of the online environment created by social media platform design and incentives. These actors have gained a following primarily as a result of their use of social media and can be thought of as social media personalities first and foremost. This includes individuals or groups motivated to produce content that performs well on social media in terms of engagement either because it provides them with a direct source of revenue (through revenue redistribution programs, which are explained in more detail in section 3), or helps them maintain and grow their following (which may lead to other online and offline revenue-generating opportunities). One such example includes 'Wide Awake Media', which started as a Telegram channel selling anti-vaccine and anti-lockdown merchandise and then shifted its focus to climate change denial, rapidly gaining a large following on Twitter/X.⁹⁵

This group also includes individuals and accounts whose *sole* intention appears to be the opportunity to earn money from their offered by social media. For example, Maldita identified that during the 2024 floods in Valencia, Spain, automated or semi-automated accounts located in India with no apparent connection to the events were disseminating widely seen dis/misinformation, concluding that their motivation may have been to generate revenue from revenue redistribution.⁹⁶

⁸⁵ Marc Owen Jones (2023), "I have identified around 1900 Twitter/X bots #greenwashing COP28. They are part of a much larger bot network, likely connected to the UAE or a UAE-aligned entity", X, 08.12.23, (accessed 05.11.25).

⁸⁶ Sheena Goodyear (2023), After oil exec named COP28 president, fake accounts rally to his defense, CBS News, 09.0623, (accessed 04.11.25).

⁸⁷ IPIE (2025), Information Integrity about Climate Science: A Systematic Review. Synthesis Report 2025.1.

NATO (2024), NATO Climate Change and Security Impact Assessment, Third Edition 2024.
 CAAD (2023), Deny, Deceive, Delay (Vol.3): Climate information integrity ahead of COP28.

⁹⁰ CAAD (2024), Climate Disinfo Digest: CAAD Data Monitor 10th Oct 2024: Alleged Russian Disinformation on US Soil Includes Divisive Climate Content, 10.10.24, (accessed 04.11.25).

⁹¹ CAAD (2024), Briefing Note: Tenet Media and Climate Disinformation.

⁹² Jess Ralston (2024), NATO: Kremlin-backed actors' disinformation seeks to derail green investment – comment, Energy & Climate Intelligence Unit, 12.07.24, (accessed 04.11.25).

⁹³ See also the results for searches on 'gas' and 'renewables' in the EUvsDisinfo website's public archive of pro-Kremlin disinformation https://euvsdisinfo.eu/disinformation-cases/?text=gas.

⁹⁴ CAAD (2023), Deny, Deceive, Delay (Vol.3); Climate information integrity ahead of COP28.

⁹⁵ Ilana Berger (2023), How One Conspiracy Theory Website Used X to Sell Climate-Denier Merchandise Through This Summer's Climate-Driven Disasters, Media Matters for America, 19.09.23, (accessed 4 November 2025).

⁹⁶ Maldita (2024), Lo que sabemos sobre los bots, en gran parte de la India, que publican sobre la DANA en Twitter (ahora X), 04.11.24, (accessed 04.11.25).

How social media platforms drive climate dis/misinformation

Repeatedly, studies have shown climate dis/misinformation to be prevalent in 'paid-for' content on social media platforms (i.e. advertising), as well as 'organic' content (i.e. content that users do not pay to post). **This is a direct result of the advertising-revenue driven business model of social media platforms.** In the case of paid-for content, platforms proactively promote disinformation to selectively targeted audiences of users who would not otherwise see it and receive payment for doing so. We set out the evidence for this in section 3.1 below.

In the case of 'organic' content, the way this content spreads and the audiences it reaches is subject to the algorithmic systems deployed by social media platforms, designed to identify and promote content most likely to keep users engaged on the platform. In section 3.2 below, we set out the evidence that indicates that platforms' focus on maximising user-engagement through algorithmic systems, coupled with financial incentives offered to users to produce content likely to garner engagement is driving climate dis/misinformation.

Ultimately, it is clear that the prevalence of climate dis/misinformation on social media platforms can be attributed to a significant degree to the "design" and "functioning of their service and its related systems" – this has clear implication under the EU DSA, which will be explored in section 4.

3.1. Climate disinformation in paid-for content

Since the advent of social media, digital advertising has risen to dominate advertising spend, accounting for 70% of total global advertising investments. Digital advertising differs from traditional channels due to the ability to target very specific audiences based on data collected by platforms: as described in a European Parliament commissioned study on online advertising published in 2021, "[u]sers' personal profiles, interactions on the platform (e.g. likes, sharing of content) and browsing behaviour within social networks provide very rich consumer data to the platform operator" which "can be used to deploy deeper targeting methods for the distribution of advertisements". These practices raise multiple concerns, including the ability of actors disseminating climate dis/misinformation to target the most strategic audiences for such narratives.

Academic literature has documented a multi-decade, multi-billion dollar disinformation and propaganda campaign by the fossil fuel industry to undermine scientific conclusions and effective climate action, which has gradually moved from outright climate denial to more subtle "discourses of delay". The significant role these advertising activities has played in worsening climate change has led to no fewer than 26 pending lawsuits filed by government actors to recover the costs of climate damage on the basis of historic and ongoing disinformation operations, and a US Congressional Committee report on fossil fuel industry climate disinformation. 101

⁹⁷ Statista (2025), Digital Advertising Worldwide - Statistics & Facts, 29.04.25, (accessed 4 November 2025).

⁹⁸ European Parliament (2021), Study: Online advertising: the impact of targeted advertising on advertisers, market access and consumer choice.

⁹⁹ The authors of InfluenceMap's 2021 report (see: Climate Change and Digital Advertising: The oil and gas industry's digital advertising strategy) found evidence of fossil fuel companies deploying advertisements strategically on Facebook, targeting users in states with "high levels of oil and gas production, such as Texas and New Mexico, and swing states, including lowa and Ohio". There were further indications that "males between 25-34 might be being targeted by both the oil and has industry and by those distributing climate science disinformation".

¹⁰⁰ See references numbered 1 – 17 in: Supran, G., and Hickey, C. (2022), Three Shades of Green(washing): Content Analysis of Social Media Discourse by European Oil, Car. and Airline Companies, Working Paper, September 2022.

¹⁰¹ Oil Change International & Zero Carbon Analytics (2024), <u>Briefing: Big Oil in Court: The Latest Trends in Climate Litigation Against Fossil Fuel Companies.</u>

These same commercial interests have shifted their communications strategies to digital channels, including social media. ¹⁰² To date, the main research into climate disinformation in paid adverts on social media platforms has focussed on two major sources: fossil fuel companies and right-wing political research and advocacy organisations. ¹⁰³

InfluenceMap has conducted two studies into climate change communication and digital advertising in the US context. The first, published in 2020, found evidence of anti-climate groups "using Facebook's advertising platform and unique targeting abilities to spread disinformation, intentionally seeding doubt and confusion around the science of climate change". 104 Specifically, InfluenceMap identified "climate-science denying" adverts placed by actors such as US rightwing media outlet PragerU¹⁰⁵ and others (e.g. The Mackinac Center for Policy, Texas Public Policy Foundation, and the Competitive Enterprise Institute), noting that their sources of funding are "opaque". 106 However, historically, for example, PragerU has been documented as having received funding from the fossil fuel industry. 107, 108, 109

InfluenceMap had previously noted that the fossil fuel industry has "generally abandoned [...] direct attacks" on climate science in the context of "an era of increasing political and consumer concern for climate change",110 but nevertheless, is prolific in terms of its digital advertising spend on communications about climate change. In a second report, published in 2021 and looking specifically at the fossil fuel industry's direct digital advertising spend in the US, it found that Facebook received a cumulative spend of almost USD 10 million from just 25 entities during 2020 in exchange for over 25,000 adverts which have been seen over 431 million times. 111 Such adverts were "designed to prolong the use of oil and gas in the energy mix",112 and InfluenceMap concluded that there was evidence of messaging that was not aligned with climate science, and claims similar to those that have been found by consumer protection authorities to be misleading in other jurisdictions.

Further research supports InfluenceMap's findings that fossil fuel companies are utilising social media platforms to disseminate adverts that may be misleading or 'greenwashing'. An analysis by international environmental and human rights NGO Global Witness, in 2023, of advertising by fossil fuel majors BP and Shell on, social media platforms, Instagram (Meta) and X/Twitter concluded that the advertisements breached UK consumer protection guidance. Global Witness found the companies were claiming "strong environmental action that does not correspond with their wider investments and activity", with the result that "these companies are likely to mislead consumers as to their overall performance on climate". A number of legal and regulatory interventions that have resulted in findings that companies have misled consumers on climate change impacts with advertising have involved adverts placed on social media platforms.

Overall, it is clear that documented originators of climate dis/misinformation are investing considerably into digital advertising strategies that include the dissemination of climate dis/misinformation. One study found that from 2018-2020, ExxonMobil's spend on Facebook 'social issue, elections and politics' advertisements were on par with that of presidential candidates and related organisations. This suggests that these actors view this avenue as a particularly effective way of influencing views on fossil fuels and climate change.

¹⁰² Supran, G., and Hickey, C. (2022), Three Shades of Green(washing): Content Analysis of Social Media Discourse by European Oil, Car, and Airline Companies, Working Paper, September 2022.

¹⁰³ The three main sources of climate disinformation ads analysed in InfluenceMap's 2020 study (see: Climate Change and Digital Advertising: Climate Science Disinformation in Facebook Advertising) are PragerU, The Mackinac Center for public Policy and Turning Point USA. DeSmog has published a profile on each of them in their Climate Disinformation Database.

¹⁰⁴ InfluenceMap (2020), Climate Change and Digital Advertising: Climate Science Disinformation in Facebook Advertising

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

¹⁰⁷ Geoff Dembicki (2022), How Fracking Billionaires, Ben Shapiro, and Prager U Built a Climate Crisis-Denial Empire, VICE, 25.08.22, (accessed 04.11.25).

¹⁰⁸ Arielle Samuelson (2022), Why climate denial could still be taught at Texas schools, Heated, 29.08.23, (accessed 04.11.25).

¹⁰⁹ Peter Stone (2023), <u>US 'university' spreads climate lies and receives millions from rightwing donors</u>, The Guardian, 06.09.23, (accessed 04.11.25).

¹¹⁰ InfluenceMap (2020), Climate Change and Digital Advertising: Climate Science Disinformation in Facebook Advertising

¹¹¹ InfluenceMap (2021), Climate Change and Digital Advertising: The Oil & Gas Industry's Digital Advertising Strategy

¹¹² Ibid.

¹¹³ Global Witness (2023), Fossil Fuel Greenwash: BP and Shell's social media campaigns since the launch of the UK's Green Claims Code.

¹¹⁴ See World Without Fossil Ads: https://www.worldwithoutfossilads.org/projects/?type=projects&tags=legal-cases&sort=latest, (accessed 05.11.25).

¹¹⁵ Christine MacDonald (202), Exxon Spends Millions on Facebook To Keep the Fossil Fuel Industry Alive, In These Times, 20.10.20, (accessed 05.11.25).



3.2. Climate dis/misinformation in organic content

The dynamics of the spread of climate dis/misinformation in organic content differ from paid-for content. Organic content is, by definition, posted by users with no payment or guarantee of a specific audience – the size and characteristics of the audience for this type of content is not determined by the poster, as it is in the case with paid for advertising. But nor is it truly 'organic': it has been long established that the way this content spreads and the audiences it reaches is subject to the algorithmic systems deployed by social media platforms, designed to identify and promote content most likely to keep users engaged on the social media platform.

Over time, platforms have shifted from delivering content from users based on recency (i.e. most recent content first) to 'relevance' (i.e. likelihood of 'engaging' the user). Today, all major platforms actively 'shape' or 'curate' organic content displayed to users using **algorithmic systems** in order to **maximise user engagement** 'Algorithms' can be described as a set of instructions that are designed to complete a specific task. Multiple algorithms, or 'algorithmic systems' are used by social media platforms to analyse user activity on social media platforms to predict the content that will maximise the degree of interaction from the user in the form of clicks, reactions, comments and viewing time.

Algorithmic systems also determine how this content is presented to the user through the different functions of the platform, such as a timeline or newsfeed, in the form of 'recommendations' (such as 'you may like' and 'up next' on YouTube) and through the search function (i.e. the ranking of the content displayed when a user searches a term in the search function is influenced to prioritise content more likely to keep the user engaged). In this context, engagement means clicks, reactions, likes, comments and/or viewing time, depending on the platform. The underlying objective in maximising user engagement is to increase the overall time spent by users on the platform, and in doing so, increase the platforms' potential to generate advertising revenue.

While the principle of seeking to maximise user engagement may be straightforward, its implications are complex and far-reaching – and this has increased as platforms have evolved to become ever more effective at maximising engagement. This includes improving the technology at their disposal to amplify certain types of content, such as machine learning.

¹¹⁶ The line between organic and paid content is not always clearcut: as Ranking Digital Rights observes, once a user shares an advert by including it in their own post, "the platform's content-shaping algorithms treat it as normal user content and highlight it to people in the user's network who are likely to click, like and engage with it, allowing such campaigns to reach audiences well beyond the targeted segments." (see: Ranking Digital Rights (2020), It's Not Just the Content, It's the Business Model: Democracy's Online Speech Challenge (accessed 05.11.25)). In the case of corporate and political actors, they may choose to disseminate their messaging through both organic content and paid ads, (see, for example: Supran, G., and Hickey, C. (2022), Three Shades of Green(washing): Content Analysis of Social Media Discourse by European Oil. Car. and Airline Companies, Working Paper, September 2022) whereas other actors, such as individual social media 'personalities' and other 'super-spreader' accounts (a term further explained later in this section) operate exclusively within the realm of organic content.

Machine learning is an application of artificial intelligence. Rather than requiring programming, machine learning uses algorithms to analyse large amounts of data, learn from the insights and then make decisions.¹¹⁷ Although machine learning was first adopted to improve the targeting of paid adverts, it has also come to be used to predict which users would like or engage with particular posts, "and then give those posts more prominence".¹¹⁸

Powered by machine learning algorithms, platforms have become incredibly effective at 'shaping' or 'curating' the content that users are exposed to in order to achieve the aim of harnessing engagement from users. It is well-established that focussing on maximising engagement results in the disproportionate amplification of polarising¹¹⁹ and misleading¹²⁰ content. This includes climate dis/misinformation: the available research – summarised below – strongly indicates that platforms are prioritising climate dis/misinformation; spreading it beyond the reach it would otherwise have had; pushing users to increasingly extreme content; and even incentivising users to produce or share climate dis/misinformation.

False and misleading information on climate outperforms accurate information

Research has found that climate dis/misinformation routinely outperforms credible, factbased information in terms of engagement on social media platforms. A study reviewing over 20 million posts on Facebook, Instagram, X/Twitter and YouTube over five years (2018 - 2022) found "significantly greater relative engagement" with unreliable versus reliable information. 121 Research conducted by the Institute for Strategic Dialogue (ISD – a think tank dedicated to addressing hate, extremism and authoritarianism) during the course of UNFCCC COP26 tracked posts produced by Facebook's official 'Climate Science Center' (intended by the platform to be a verified content hub, comprising climate science pages from authoritative sources such as the IPCC, UN Environment Programme and the UK's Met Office, since removed from the platform, as noted in section 4 of this briefing). ISD compared engagement between posts from pages affiliated with the Climate Science Center, finding that "the eight authoritative pages featured by Facebook's Climate Science Center achieved an average of [approximately] 7,500 interactions on their posts during the period of study, versus [approximately] 92,000 interactions for climate sceptic actors. This means that the sceptic content garnered 12 times the level of engagement of authoritative sources on the platform." 122

Maldita and AI Forensics' 2025 study into climate dis/misinformation in Spain found that videos containing climate dis/misinformation relating to the Valencia floods of 2024 gained significant views: 13 million on YouTube and 8.3 million on TikTok. 123 The NGOs also concluded that climate dis/misinformation content on YouTube gained four times the average number of views, concluding that the figures, "indicate substantial platform-level amplification." 124

Climate dis/misinformation is 'upranked' by platforms...

Research also suggests that climate dis/misinformation is being 'upranked' by platforms in the search function, leading to such content acquiring more engagement that it would otherwise have done. For example, research by ISD found the hashtag "#ClimateScam" to have "suddenly spiked" on Twitter in July 2022, accruing over 362,000 mentions from 91,000

¹¹⁷ Google, Artificial Intelligence vs. Machine Learning, (accessed 14.10.25).

¹¹⁸ Karen Hao (2021), How Facebook got addicted to spreading misinformation, MIT Technology Review, 11.03.21, (accessed 05.11.25).

¹¹⁹ Milli, S., et al. (2025), Engagement, user satisfaction, and the amplification of divisive content on social media, PNAS Nexus, Volume 4, Issue 3, March 2025.

¹²⁰ Denniss, E. and Lindberg, R. (2025), <u>Social media and the spread of misinformation: Infectious and a threat to public health</u>, Health Promotion International, Volume 40, Issue 2, April 2025.

¹²¹ Storani, S., et al. (2025), Relative Engagement with Sources of Climate Misinformation Is Growing Across Social Media Platforms, Scientific Reports, 15, Article number

¹²² ISD (2022), Deny. Deceive, Delay: Documenting and responding to climate disinformation at COP26 and beyond.

¹²³ Maldita and Al Forensics (2025), <u>Truth be Dammed: One year after the Valencia floods, a deluge of disinformation – A study on climate dis/misinformation on YouTube and TikTok.</u>

¹²⁴ Ibid.

users between July and the end of the year. The hashtag was found to have been actively recommended by organic searches of the term "climate" (often as the top result), "despite data that show[ed]more activity and engagement on other hashtags such as #ClimateCrisis and #ClimateEmergency". ISD found that the causes of this virality were unclear, and could not be explained by other factors, inferring that algorithmic amplification had played a significant role in causing the virality of the hashtag. 125

... and recommended to users

Further research indicates that YouTube is promoting climate dis/misinformation through the recommender function. In a study of posts made on platforms during and following extreme weather events in the US between 2023 and 2025, CCDH found that nearly one in three YouTube videos promoting misleading claims about extreme weather featured a recommendation for further misleading climate content. This shows that rather than "diverting users away from untrustworthy information, YouTube is actively channelling them to more videos containing false and misleading claims on the themes of extreme weather and climate". 126

The issue is not limited to the role that platforms play in exacerbating the spread of climate dis/misinformation, but also driving polarisation and pushing users to ever more extreme content through recommender systems. In the context of climate dis/misinformation, Global Witness simulated the experience of a climate-sceptic user on the platforms, and found that "within a few clicks Facebook's algorithm recommended content that denied the existence of man-made climate warming and attacked measures aimed at mitigating the climate crisis", concluding that "[o]ur findings suggest that Facebook could well be radicalising users who, once they arrive on anti-climate science pages are driven to more extreme climate disinformation". 127

Digital distortion: How social media platforms are driving climate disinformation in Europe and beyond

127 Global Witness (2022), Investigation: The Climate Divide: How Facebook's Algorithm Amplifies Climate Disinformation, (accessed 05.11.25).

¹²⁵ ISD (2023), Deny, Deceive, Delay (Volume 2): Exposing New Trends in Climate Mis- and Disinformation at COP27.

¹²⁶ CCDH (2025), Extreme Weather: How a storm of false and misleading claims about extreme weather events spread unchecked on social media putting lives at risk

SOS

Inauthentic accounts are used to 'game' the algorithm and spread climate dis/misinformation

There is also evidence that actors with an interest in disseminating misleading information about climate change are harnessing algorithmic systems through deception, by creating or influencing the spread of inauthentic content. This can be achieved through 'bots' (automated social media accounts designed to mimic human behaviour) interacting with other users' content and posting messages of their own, or 'trolls' (human-operated inauthentic accounts), or a combination of the two working together. "Malicious actors" have been found to "use networks of bots to amplify false narratives, manipulate trends and swiftly disseminate misinformation." Both bots and trolls can play important roles in directly introducing disinformation onto social media platforms, sharing it, and triggering algorithmic amplification of such content by sharing, re-posting and commenting on it. 129

There is evidence that climate dis/misinformation has been amplified using these strategies. A 2021 study published in the journal Climate Policy found that in the period surround US President Trump's announcement on withdrawing from the Paris Agreement, approximately 25% of all tweets about climate change on X/Twitter were from accounts suspected of being bots. Although researchers were not able to determine the identity of the groups that had deployed the bots, they reportedly suspected "fossil-fuel companies, petro-states or their surrogates". Other studies have reached similar conclusions. For example, a study on X/Twitter discourse during UNFCCC COP24 in Poland estimated that 35% of accounts that tweeted about climate change during the conference were bots. 132

The study carried out by ARIJ and Code for Africa, previously referred to in section 2, found patterns suggesting "a systematic effort to amplify engagement" with climate change denial and content downplaying the environmental impact of fossil fuels using automated and semi-automated accounts.¹³³

Social media platforms shape content, not just how it spreads

Platforms play a hand not only in determining how content spreads, and who it reaches, but also the nature of the content in the first place. In a context where it is well known what kind of content is likely to harness algorithmic amplification, users seeking high levels of engagement – whatever their motivation – may choose their subject matter and tone accordingly so as to increase the chances that it gets picked up by the algorithm.

This strategic 'gaming' of the algorithm is likely a major contributing factor to the success of a relatively small number of social media accounts described as 'super-spreaders' of climate dis/misinformation, since they post regularly, get high engagement and play an outsized role in the spread of inaccurate and misleading information on climate. ¹³⁴ A recent report noted that "the most influential content is often produced or amplified by a limited set of actors who recurrently share misleading information", finding that "[a] small number of highly influential accounts can largely shape the spread of misleading narratives on the platform". ¹³⁵

CAAD cites the example of Wide Awake Media, ¹³⁶ a channel on X/Twitter, whose posts on climate and other themes that "reliably drive grievance-based engagement" has contributed to the virality of the account: between April and November 2023 it went from 322 followers to

¹²⁸ Nick Hajli Election Disinformation: How Al-Powered Bots Work and How You Can Protect Yourself from Their Influence, The Conversation, 09.04.24, (accessed 05.11.25).
129 Kirsi Helkala (2023), <u>Automated Disinformation Campaigns</u>, in Pacem in Terris: War and Other Obstacles to Peace, Studia Selecta 11, Pontifical Academy of Social Sciences,

¹³⁰ Marlow, T., et al. (2021), <u>Bots and online climate discourses: Twitter discourse on President Trump's announcement of U.S. withdrawal from the Paris Agreement,</u> Climate Policy, Volume 21, 2021, Issue 6.

¹³¹ Corbin Hiar (2021), Twitter Bots Are a Major Source of Climate Disinformation, Scientific American, 22.01.21, (accessed 05.11.25).

¹³² Tyagi, T., et al. (2020), Polarizing Tweets on Climate Change, Lecture Notes in Computer Science, August 29 2020.

¹³³ Mohamed Tolba (2025), Cyberstorm: "Petroleum accounts" lead disinformation campaigns on climate change, ARIJ, 23.07.25, (accessed 05.11.25).

¹³⁴ Anna Merlan (2024), Who's Behind One of the Major Accounts Promoting Climate Denialism on X?, Mother Jones, 04.12.24, (accessed 05.11.25).

¹³⁵ Science Feedback et al. (2025), Measuring the State of Online Disinformation in Europe: First report of the SIMODS project – Structural Indicators to Monitor Online Disinformation Scientifically.

¹³⁶ CAAD (2024), Extreme Weather, Extreme Content: How Big Tech Enables Climate Disinformation in a World on the Brink.

nearly 600,000.¹³⁷ The identity of those behind the account are unknown, but it has claimed to be a "one man operation" based in the UK.¹³⁸

Such accounts are likely to have always been influenced by financial motivations, albeit indirectly, for example, through revenue-generating opportunities outside the platform. For example, Wide Awake Media has posted links to websites selling merchandise (including t-shirts bearing the slogan "#ClimateScam").¹³⁹

However, platforms have introduced an explicit financial motivation for users to generate content that attracts high levels of engagement by implementing revenue redistribution programs. Through these programs, platforms redistribute parts of their own revenue with content creators/publishers via with a focus on rewarding views and engagement. The specifics of revenue redistribution models varies between platforms, but the principle is the same: the more views and engagement content generates, the greater the remuneration the content publisher receives from the platform.

Tech accountability NGO What To Fix has warned that these programs are rapidly expanding, with little to no transparency and oversight. Revenue redistribution is now a core feature of each of the social media platforms addressed in this briefing, with the exception of Instagram, and a major industry: it is estimated that platforms currently redistribute over USD 20 billion in advertising revenue to over five million social media accounts annually. What To Fix reports that revenue redistribution has given rise to an international industry of monetised content generation, noting that such communities have become particularly developed across Asia, Latin America, the Middle East and the Balkans, "where the payouts can easily exceed average monthly salaries". Of particular relevance to the EU context, such communities intentionally target high income markets, with higher income payouts.

There is also substantial evidence that platforms are allowing creators to claim a stake in advertising revenue generated from climate dis/misinformation. For example, CCDH found that YouTube displayed adverts next to 29% of misleading extreme weather videos, indicating that the accounts posting the videos may have been participating ad revenue sharing. The same study also found that Meta and X/Twitter have enabled creators to share in advertising revenue from misleading claims during extreme weather events. Maldita reached the same conclusion in respect of dis/misinformation relating to the 2024 floods in Valencia, Spain, finding that on X/Twitter "most of the viral content and disinformation came from accounts with the Twitter badge" – an indicator that the accounts participate in revenue redistribution, meaning creators may have received payment for these posts. 146

This evidence indicates that monetisation through social media platforms is likely to be directly incentivising users to post climate dis/misinformation. However, lack of transparency over revenue distribution programs is a major obstacle to external research conducting comprehensive analysis on this. At present, only Meta provides public data on users' participation in revenue redistribution programs. As noted by Maldita and Al Forensics in their 2025 report on climate dis/misinformation following the DANA, "[m]onetisation, like algorithmic amplification, remains one of the many obscure parts of platform analysis that is difficult – impossible, even – to study independently". 147

¹³⁷ Anna Merlan (2024), Who's Behind One of the Major Accounts Promoting Climate Denialism on X?, Mother Jones, 04.12.24, (accessed 05.11.25).

¹³⁸ Ibid.

¹³⁹ Ibid.

¹⁴⁰ What to Fix (2024), From Content to Payment: The Rise and Implications of Social Media Ad Revenue Sharing

¹⁴¹ Instagram shut down its program in January 2025 (see: https://www.monetization.wtf/p/instagram/). More details about the other platforms' revenue distribution programs can be found at https://www.monetization.wtf/.

¹⁴² Ibid.

¹⁴³ What to Fix (2024), From Content to Payment: The Rise and Implications of Social Media Ad Revenue Sharing.

¹⁴⁴ Ibid.

¹⁴⁵ CCDH (2025), Extreme Weather: How a storm of false and misleading claims about extreme weather events spread unchecked on social media putting lives at risk.

¹⁴⁶ International Journalists Network (2024), Floods in Spain Highlight Disinformation's Appeal During Disasters, IJNET, 9 December 2024, (accessed 10.11.25).

¹⁴⁷ Maldita and Al Forensics (2025), <u>Truth be Dammed: One year after the Valencia floods</u>, a <u>deluge of disinformation</u> – A <u>study on climate dis/misinformation</u> on YouTube and TikTok.

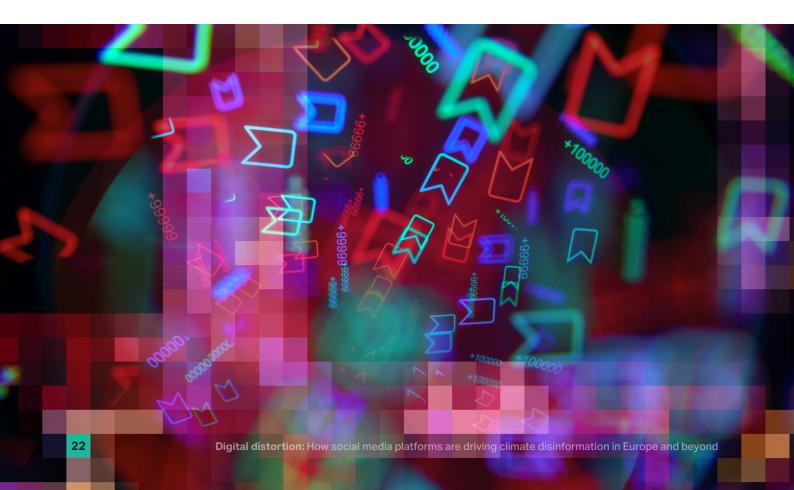
3.3. Conclusion: "it's the business model"

Platforms do not provide access to algorithmic systems' decisions, and only Meta (Facebook and Instagram) provides (limited) data on amounts redistributed through advertisement revenue sharing programs. 148 Despite this lack of transparency, there is sufficient evidence from outside studies to point to the conclusion that the ultimate driving force behind the prevalence of climate dis/misinformation on social media platforms is the design of their systems to achieve the objective of driving advertising revenue and the incentives they have put in place to support this. As US non-profit research initiative Ranking Digital Rights summarises, "it's not just the content, it's the business model." 149

The research strongly indicates that:

- those with a vested interest in delaying climate action are using social media advertising to reach large, targeted audiences;
- climate dis/misinformation is more prolific than it otherwise would have been and is reaching more people than it would have done had it not been amplified by algorithmic systems;
- users are being pushed towards ever more extreme climate dis/misinformation as a result of recommender systems;
- the tone and positions adopted by disseminators of climate dis/misinformation are becoming more extreme in order to harness algorithmic amplification and gain greater engagement; and
- those without a vested interested in delay climate action are joining the fray, with motivations including financial incentives offered by platforms for high-engagement content.

¹⁴⁹ See Ranking Digital Rights, It's the Business Model: How Big Tech's Profit Machine is Distorting the Public Sphere and Threatening Democracy - Ranking Digital Rights



¹⁴⁸ What to Fix, Instagram Monetization Governance, Monetization.wtf, (accessed 05.11.25).

4

Obligations under the EU's Digital Services Act

In force since February 2024, the **EU DSA**¹⁵⁰ has been described by the European Commission as a "first-of-a-kind" piece of legislation, creating an "international benchmark" for the regulation of 'Big Tech' companies.¹⁵¹ Addressing dis/misinformation, and its impacts on society, were at the heart of the European Commission's agenda during the legislative process that gave rise to the EU DSA.¹⁵² Specifically, the provisions that create accountability for platforms to address dis/misinformation are the 'systemic risk' provisions set out in Articles 34 and 35 of the EU DSA. These provisions require platforms to identify the ways that their platform and the design of the services give rise to systemic risks to society and put in place effective measures to mitigate them. The process of risk assessment is to be audited, and documented in a report to the European Commission, along with an explanation of the mitigation measures implemented to address the risks identified.¹⁵³

These requirements only apply to the largest platforms and search engines operating in the EU – defined as those with at least 45 million subscribers (at least 10% of the 450 million consumers in the EU).¹⁵⁴ This includes the social media platforms referred to in this briefing: Facebook, Instagram, YouTube, TikTok and X.¹⁵⁵

As we conclude below, it is clear that platforms' role in driving climate dis/misinformation is precisely the type of risk that the EU DSA was designed to address. Yet, despite this, platforms are failing to clearly identify and mitigate the issue of climate dis/misinformation in their systemic risk reports. Platform mitigation measures are either not sufficiently effective, not properly implemented, or both. According to our assessment, this likely represents a breach of the EU DSA.

4.1. EU DSA's requirements to identify and mitigate systemic risks

Diligently identify 'systemic risks' arising from platform systems and functions

Article 34(1) of the EU DSA requires 'very large online platforms' ("VLOPs") to "diligently identify, analyse and assess any systemic risks in the Union stemming from the design or functioning of their service and its related systems, including algorithmic systems, or from the use made of their services."

Article 34(1)(a)-(d) sets out specific types or categories¹⁵⁶ of systemic risks that platforms should (non-exhaustively) include in their assessments. These include, for example, negative effects on the exercise of fundamental rights, civic discourse and public security, as well as matters relating to public health.

Article 34(2) specifies certain aspects of their designs and systems that platforms are required to consider as potentially causing¹⁵⁷ or contributing to¹⁵⁸ systemic risks, such as the

¹⁵⁰ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act).

¹⁵¹ European Commission (2022), Press release: Digital Services Act: EU's landmark rules for online platforms enter into force, (accessed 05.11.25).

¹⁵² European Commission (2020), Commission Staff Working Document, Impact Assessment accompanying the document: Proposal for a regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC, Part 1.

¹⁵³ Articles 37 and 42 of the EU DSA

¹⁵⁴ Recital 76 of the EU DSA

¹⁵⁵ European Commission, Supervision of the designated very large online platforms and search engines under DSA, Updated 10.10.25, (accessed 05.11.25).

¹⁵⁶ Referred to as "[f]our categories of systemic risks" in Recital 80 of the EU DSA, which "should be assessed in-depth" by VLOPs

¹⁵⁷ Recital 79 of the EU DSA.

¹⁵⁸ Recital 84 of the EU DSA.

design of algorithmic systems, content moderation, and advertising systems. Article 34(2) also requires VLOPs to "analyse whether and how" these risks "are influenced by the intentional manipulation of their service" (i.e. inauthentic use, including through bots and trolls).

The Article 34 obligation is both wide (referring to "any" systemic risks) and shaped by specific wording (the EU DSA provisions identify specific categories of systemic risks and aspects of VLOP systems which must be analysed). The potential width of the provisions does not deprive them of their meaning. Rather it points to the need to apply them to the evidence. Reflecting the fundamental principles of human rights due diligence frameworks which the EU DSA implements, it means that VLOPs are legally required to address systemic risks in an ongoing risk-based prioritisation, based on the available information and evidence. Consequently, VLOPs which fail to identify systemic risks of which they have notice, and which present severe risks to human rights, public health, etc., are likely to be in breach of Article 34.

Put in place effective measures to mitigate these risks

Article 35(1) requires that VLOPs "put in place, reasonable, proportionate and effective mitigation measures, tailored to the specific systemic risks identified pursuant to Article 34", "with particular consideration of the impact of such measures on fundamental rights". Article 35(1)(a) – (k) sets out a non-exhaustive list of measures that may be relevant, which includes, for example, "(d) testing and adapting their algorithmic systems, including their recommender systems", and "(e) adapting their advertising systems". In essence, under Article 35, once platforms have identified systemic risks in compliance with Article 34, they must put in place measures suitable for addressing those risks. Again, the terms of the provision partly limit the discretion platforms have. In order to qualify for compliance with Article 35, measures will need to respond directly to the ways in which the platform contributes to the systemic risk, and will need to track and demonstrate effectiveness. ¹⁶⁰ A failure to implement measures given in list of examples in Article 35(1)(a)-(k) is more likely to be non-compliant.

In this light, the Code of Conduct on Disinformation further shapes the interpretation of Article 35, by providing a benchmark for assessing compliance. The first iteration of this Code was produced in 2018 (then referred to as a 'Code of Practice'). ¹⁶¹ Its provisions were strengthened in 2022¹⁶² and it was finally formally incorporated into the EU DSA framework pursuant to Article 45 in 2025. ¹⁶³ Facebook and Instagram (Meta), TikTok and YouTube (Google), are signatories to the Code of Conduct on Disinformation. ¹⁶⁴ Even for platforms that are not signatories (notably, X/Twitter, which pulled out of the (then) Code of Practice in May 2023) ¹⁶⁵ it remains a relevant tool for interpreting and enforcing Article 35. ¹⁶⁶ The Code of Conduct on Disinformation contains specific commitments such as "defund[ing] the dissemination of disinformation", "prevent[ing] the misuse of advertising systems to disseminate disinformation in the form of advertising messages" and "minimis[ing] the risks of viral propagation of disinformation by adopting safe design practices as they develop their systems, policies, and features." ¹⁶⁷

¹⁵⁹ Recital 79 of the EU DSA refers to this process of prioritisation, listing criteria to be taken into account as VLOPs carry it out. Recital 47 explicitly refers to the <u>United Nations Guiding Principles</u>, stating that platforms "should... pay due regard to relevant international standards for the protection of human rights, such as the United Nations Guiding Principles on Business and Human Rights".

¹⁶⁰ UN (2012), The Corporate Responsibility to Respect Human Rights: An interpretative guide, Office of the United Nations High Commissioner for Human Rights – see

¹⁶¹ European Commission (2018), Code of Practice on Disinformation, 26.09.18, (accessed 05.11.25).

¹⁶² Ibid.

¹⁶³ European Commission (2025), The Code of Conduct on Disinformation, 13.02.25 (accessed 05.11.25).

¹⁶⁴ See: https://disinfocode.eu/signatories.

¹⁶⁵ Francesca Gillett, Twitter pulls out of voluntary EU disinformation code, BBC News, 27.05.23, (accessed 05.11.25).

¹⁶⁶ In the 2024 article 'Codes of Conduct in the Digital Services Act: Functions, Benefits & Concerns,' Rachel Griffin describes them as creating "de facto obligations" for VLOPs, referring to the way that the Codes are referred to and incorporated into the EU DSA obligations, especially Article 35.

¹⁶⁷ European Commission (2018), Code of Practice on Disinformation, 26.09.18, (accessed 05.11.25).

Submit report detailing results and mitigation measures on an annual basis

VLOPs are required to carry out the risk assessment process on an annual basis, ¹⁶⁸ and "a report setting out the results of the risk assessment" and "the specific measures put in place" are to be submitted to the relevant Digital Services Coordinator and the Commission and made publicly available. ¹⁶⁹ The risk assessment reports prepared by the platforms in 2024 are available online. ¹⁷⁰

4.2. Application to climate dis/misinformation

Article 34 of the EU DSA requires VLOPs, which includes Facebook, Instagram, TikTok, YouTube and X, Twitter to "diligently identify, analyse and assess any systemic risks in the Union stemming from the design or functioning of their service and its related systems, including algorithmic systems, or from the use made of their services".

For the purposes of the EU DSA, 'systemic risk' can be understood to mean:

- a potential negative effect or impact that
- arises from platform systems, including advertising systems and algorithmic systems, especially those used to "disseminate or amplify misleading or deceptive content, including disinformation";¹⁷¹ and
- ereaches a relative degree of significance, to be determined based on factors such as severity, the number of people affected, the potential irreversibility and the likelihood of occurring.¹⁷²

The context of the EU DSA, the Recitals and the language of Article 34 itself applied to the facts outlined in this briefing **point to platform obligations to identify climate dis/misinformation in their systemic risk assessments pursuant to Article 34.** In turn, this means that platforms are required by Article 35 to put in place tailored, reasonable, effective and proportionate mitigation measures.

The European Commission has stated that climate change is "one of the most existential of all the threats we face." To take the example of flooding, in the past three decades, flooding in Europe has killed almost 3,000 people, affected five million people and caused more than EUR 170 billion of economic damage. He had 170 billion of economic damage. Use European Environment Agency's European Climate Risk Assessment (with 'high confidence') to increase to EUR 14.7-28.7 billion of economic damage and half a million people affected per year, due to climate change. Extreme heat and drought is driving heat deaths, crop failure and water scarcity. The current emissions trajectory to 3 degrees Celsius above pre-industrial temperatures is projected to mean that, in any given year, more than half of the European population will experience a heatwave, bringing heat deaths from less than 3,000 per year (1981-2010) to 96,000 per year by the time global temperatures reach a 3 degree Celsius increase. Weather events are expected to have disastrous, and cascading effects on human systems, from water and energy infrastructure to food production and health systems.

¹⁶⁸ Article 34(1) of the EU DSA

¹⁶⁹ Article 42(4) of the EU DSA.

¹⁷⁰ See (accessed 05.11.25): Meta Systemic Risk Assessment and Mitigation Report for Facebook (August 2024); Meta Systemic Risk Assessment and Mitigation Report for Instagram, YouTube Report of Systemic Risk Assessments 2024; Report Setting Out the Results of Twitter International Unlimited Company (August 2024).

¹⁷¹ Recital 84 of the EU DSA.

¹⁷² Recital 79 of the EU DSA.

¹⁷³ European Commission (2024), Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Managing climate risks - protecting people and prosperity, (COM(2024) 91 final), 12 March 2024, CELEX No 52024DC0091.

¹⁷⁴ European Environment Agency (2024), European Climate Risk Assessment, (EEA Report No 01/2024).

¹⁷⁵ Ibid.

¹⁷⁶ Ibid.

The evidence set out in this briefing indicates that:

- Online climate dis/misinformation is having a significant and sustained negative impact on climate mitigation, adaptation and preparedness. Online dis/misinformation causes immediate, significant harm and disruption to those affected by and responding to extreme weather events caused or exacerbated by climate change, which are escalating in frequency and severity. Such climate harms are severe, affecting a vast number of EU citizens, can be irreversible, and are all but guaranteed, both from existing emissions continuing to warm the planet and under future emissions pathways. There are multiple examples of how climate dis/misinformation has undermined specific climate-change related policy initiatives, as well as statements from the IPCC, the UN Secretary General's office and the European Commission to the effect that climate dis/misinformation is eroding public and political will for climate action; and
- Climate dis/misinformation is artificially promoted by platforms algorithmic systems, incentivised by platform monetisation programs and disseminated through platform advertising for payment. Even in the absence of the transparency that would be needed to draw precise and quantified conclusions on the extent to which online climate dis/misinformation can be attributed to platform design (which platforms have access to), there is sufficient evidence to conclude that the prevalence, reach and even the tone of climate dis/misinformation is, to a material extent, a consequence of platform systems that are "optimised to benefit their... advertising-driven business models", specifically, through algorithmic systems designed to maximise engagement.¹⁷⁷

Ultimately, the short, medium and long-term consequence of platforms' promotion of climate dis/misinformation is – in literal terms – to worsen the harms of climate change relative to what they would otherwise have been. There can therefore be no doubt that the EU DSA requires the identification of this systemic risk pursuant to Article 34(1) and the implementation of "reasonable, proportionate and effective mitigation measures" that are "tailored" to address how platforms contribute to it.

4.3. Conclusion: compliance with the EU DSA is in question

Despite the lack of platform transparency, the evidence is sufficient to conclude that the spread of climate dis/misinformation is a 'systemic risk' that platforms are required to identify under Article 34 of the EU DSA. Accordingly, pursuant to Article 35, platforms are obliged to implement effective mitigation measures to address it. And yet, the indications from platforms' systemic risk assessments do not demonstrate EU DSA compliance in the case of climate dis/misinformation:

- The role of platform systems in spreading climate dis/misinformation is not identified as a systemic risk in the risk assessments of Facebook, 178 Instagram, 179 YouTube 180 and X/Twitter. 181 Indeed, the latter makes no reference to climate change whatsoever in its risk assessment.
- Facebook¹⁸², Instagram¹⁸³ and YouTube¹⁸⁴ make limited, brief references to climate dis/misinformation in the form of examples of measures relating dis/misinformation more generally.

¹⁷⁷ Recital 79 of the EU DSA

¹⁷⁸ Meta (2024), FU Regulation 2022/2065 Digital Services Act (DSA), Systemic Risk Assessment and Mitigation Report for Facebook, August 2024.

¹⁷⁹ Meta (2024), EU Regulation 2022/2065 Digital Services Act (DSA). Systemic Risk Assessment and Mitigation Report for Instagram, August 2024.

¹⁸⁰ Google Ireland Limited (2023), Report of Systemic Risk Assessments Junder the Digital Services Act, 28.08.23.

¹⁸¹ Twitter International Unlimited Company (2024), Report Setting out the results of Twitter International Unlimited Company Risk Assessment Pursuant to Article 34 EU Digital Services Act, 20.08.24.

¹⁸² Meta (2024), EU Regulation 2022/2065 Digital Services Act (DSA), Systemic Risk Assessment and Mitigation Report for Facebook, August 2024.

¹⁸³ Meta (2024), EU Regulation 2022/2065 Digital Services Act (DSA), Systemic Risk Assessment and Mitigation Report for Instagram, August 2024.

¹⁸⁴ Google Ireland Limited (2023), Report of Systemic Risk Assessments [under the Digital Services Act, 28.08.23.

TikTok does, on the other hand, identify "climate change misinformation" as a risk relating to "civic integrity". 185 It provides a definition of what it considers to be "climate change misinformation", 186 an example of an initiative it launched related to climate dis/misinformation (though notably, this is not a measure that addresses the role of the platform's systems in amplifying and incentivising climate dis/misinformation), 187 as well as noting that climate misinformation is prohibited on the platform according to its policy.

Overall, none of the platforms describe the nature of the risks of climate dis/misinformation in their systemic risk assessment, how their platforms systems contribute to it, nor provide a comprehensive or contextualised description of measures taken, as required by Articles 34 and 35.

Moreover, platform efforts to address dis/misinformation appear to be wholly inadequate. Analysis conducted by EU DisinfoLab (a European non-profit organisation) in 2025 finds that "most [platforms] continue to treat [climate disinformation] as a marginal issue, if they address it all", with measures described as "partial", "narrow in scope" and "inconsistently enforced". 188 For example:

- X/Twitter has no formal climate dis/misinformation policy. EU DisinfoLab finds that "[the platform lacks definitions, enforcement guidelines, fact-checking partnerships, or ad controls specific to climate."
- Despite YouTube's stated prohibition on advertising revenue from content contradicting the scientific consensus on climate change,¹⁸⁹ a study by CAAD identified over 200 videos spreading denial and delay narratives, with more than 73 million cumulative views, many of which remained monetized in direct violation of YouTube's own policies.¹⁹⁰
- TikTok is the only major platform with an explicit policy on climate dis/misinformation, in which it prohibits "misinformation that denies the existence of climate change, misrepresents its causes, or contradicts established environmental impact". 191 However, EU DisinfoLab found no transparent evidence of enforcement by the platform, no climate-specific moderation data, and inconsistent application across multiple languages and jurisdictions. 192 AI Forensics and Maldita's study into climate dis/misinformation on TikTok following the Valencia floods reaffirms this conclusion, finding over 100 examples of videos denying or diminishing the role of climate change in the DANA with over 30,000 views on average per video, available on the platform almost a year after having been posted. 193
- Meta, meanwhile, appears to have actively regressed: the company appears to have removed its Climate Science Center (see description in section 3.2) "without explanation or replacement", that "previously supported public-facing climate education". 194 Similarly, with reference to organic content on Facebook and Instagram EU DisinfoLab found "no public evidence of targeted enforcement, visibility initiatives, or updated guidance specific to climate change content." 195 Whether the problem is that platform measures are not fit for purpose, or that they are not being properly implemented, or a combination of both, the evidence suggests that the spread of climate dis/misinformation on platforms is not being adequately mitigated.

¹⁸⁵ TikTok Technology Ltd. (2024), DSA Risk Assessment Report 2024, updated 02.10.24, page 109.

¹⁸⁶ TikTok Technology Ltd. (2024), <u>DSA Risk Assessment Report 2024</u>, updated 02.10.24, page 78.

¹⁸⁷ TikTok Technology Ltd. (2024), <u>DSA Risk Assessment Report 2024</u>, updated 02.10.24. page 109.

¹⁸⁸ EU DisinfoLab (2025), <u>Platforms' Policies on Climate Change Misinformation</u>.

¹⁸⁹ Google LLC (2021), <u>Updating our ads and monetization policies on climate change</u>, 08.10.21, (accessed 05.11.25)

¹⁹⁰ CAAD (2023), Climate of Misinformation – Ranking Big Tech.

¹⁹¹ Twitter International Unlimited Company (2024), Report Setting out the results of Twitter International Unlimited Company Risk Assessment Pursuant to Article 34 EU Digital Services Act, 20.08.24.

¹⁹² EU DisinfoLab (2025), Platforms' Policies on Climate Change Misinformation.

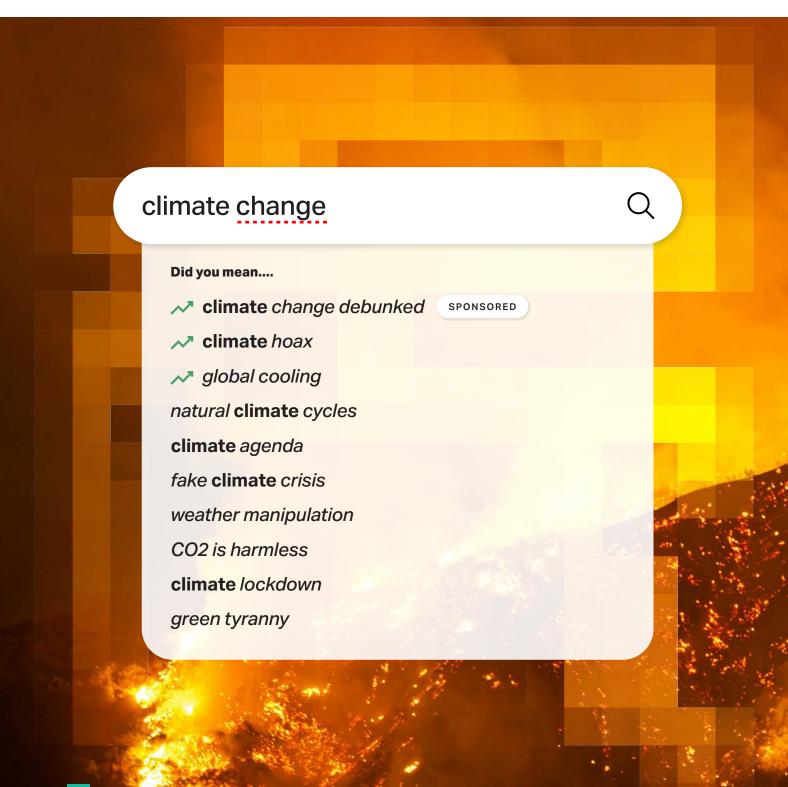
¹⁹³ Maldita and Al Forensics (2025), <u>Truth be Dammed: One year after the Valencia floods, a deluge of disinformation – A study on climate dis/misinformation on YouTube and TikTok</u>.

¹⁹⁴ EU DisinfoLab (2025), Platforms' Policies on Climate Change Misinformation.

¹⁹⁵ Ibio

The EU DSA's systemic risks provisions have been described as "the crown jewel in the EU DSA's regulatory toolbox", a signal from the EU legislature "that it is no longer acceptable to optimise the design of services at the expense of everyone else to achieve the fastest possible growth and profit". 196 The analysis in this report suggests that either platform improvement or EU DSA enforcement is necessary, before it can be said that compliance with the EU DSA is functioning to address the troubling spread of climate dis/misinformation on the largest social media platforms.

196 Martin Husovec (2024), Principles of the Digital Services Act (Oxford University Press).



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Digital distortion

How social media platforms are driving climate disinformation in Europe and beyond

NOVEMBER 2025

