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# Media and the Climate Crisis

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## Abstract

Recent years have seen another peak in global media attention to climate change. Driven by increasingly dire news about extreme weather, growing demands of systemic adaption and a new wave political activism, the current situation has increasingly been framed as a climate *crisis*. This introductory essay maps these recent developments and elaborates the conceptual potentials and limitations of the “crisis” frame. It also briefly reviews the state of the art of media research and situates the contributions of the issue into this landscape.

**Keywords:** climate change, climate crisis, media and communication research, conceptualisation, framing

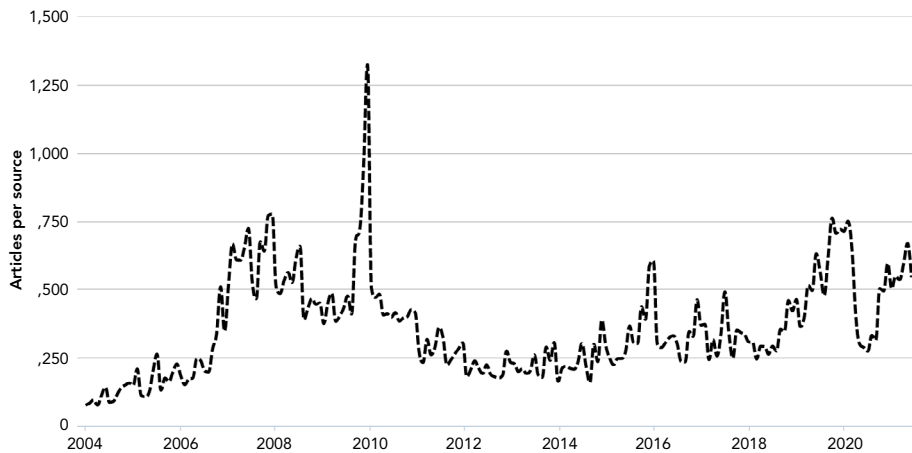
## The Arrival of the Crisis

The end of the last decade saw a significant rise of global media attention on climate change. The coverage of climate issues was now as high as ever, equalling the extent and overall intensity of its breakthrough years 2006–2008 (see Figure 1; see also Boykoff et al., 2021). This new high tide of media focus on climate was not merely an example of the well-known attention cycles of public discourse (Djerf-Pierre, 2012; Downs, 1972); it also came with a new sense of urgency about the future stability of the climactic system of the Earth. Consequently, the rise of the debate about climate as a *crisis* is not merely a “topic” on the political and public agenda, but rather a systemic challenge that societies face – from everyday life choices to the very foundations of the economy, social interests, and power relationships.

The shift in public vocabulary – from climate *change* towards climate *crisis* – is by no means a dominant transformation, at least not yet. And as the physical phenomenon of climate change has been recognised since the nineteenth century, this is not the first instance of a change in naming the consequences of the rising levels of carbon dioxide (and other greenhouse gases) in the Earth’s atmosphere.

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**Figure 1** World newspaper coverage of climate change and global warming, 2004–2020

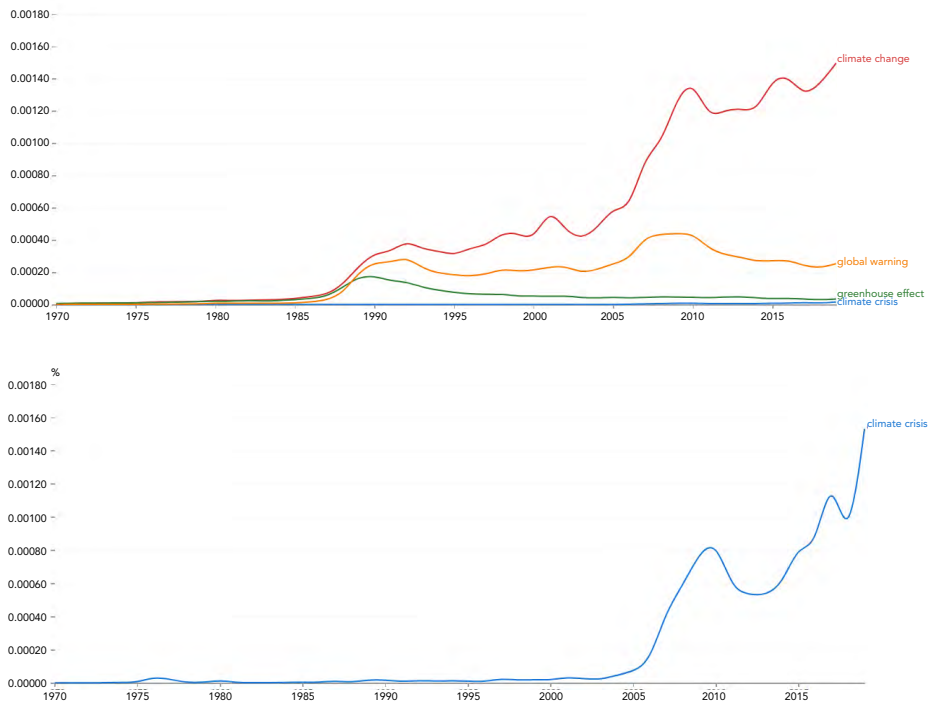
*Comments:* Number of stories in newspaper coverage of climate change or global warming in 112 sources across 56 countries in seven different regions around the world.

*Source:* Boykoff et al., 2021

In the last 50 years, this terminology has gradually evolved to grasp both the scope and the complexity of the phenomenon. In the 1970s, despite raising a sense of worry, early talk about the “greenhouse effect” still denoted a phenomenon that actually makes life as we know it on Earth *possible*. In the 1980s, as the scientific evidence about anthropogenic heating began to break through, the notion of “global warming” was used more and more. This clearly suggested more worrying scenarios for the future and denoted a process that was definitely underway. “Climate change”, the dominant term used now, appeared around the same time, and it was in common use as the scientific label at least since the Intergovernmental Panel for Climate Change (IPCC) was established in 1988. Figure 2, a Google Ngram, illustrates the rough relative weight of these terms over time in the English-language literature during the last 50 years. “Climate crisis”, as we can see, is still a marginal term in the big picture, but if we zoom in on it alone, increasing usage appears (see Figure 2).

We live in an increasingly complex world characterised by intense and global interconnections, of which we are more acutely aware than any previous generation. This era is signified by conceptualisation, to a large extent carried out in the media (Krzyżanowski & Forchtner, 2016). Epistemically, the media *creates* crises by naming and framing them, and communicating what is at stake. For (media) scholars, attention to this process involves a two-sided endeavour: first, it demands that we consider how the increasing conceptualisation of problems in public discourse as such might obscure actions and actors behind the concepts and might impede identification of complex networks of winners, victims, and responsibilities. Second, this calls for critical and careful attention to which specific concepts are coined, circulated, promoted, and opposed in these media-saturated times.

**Figure 2** Frequency of “climate crisis”, “climate change”, “global warming”, and “greenhouse effect”, 1970–2019 (Google Ngram, English literature)



*Comments:* The top graph is a Google Ngram that traces the relative frequency of “climate change”, “global warming”, “greenhouse effect”, and “climate crisis” from 1970 to 2019, showing rise of “climate change” to a dominant position during the run-up to Copenhagen climate summit 2009. The bottom graph is a Google Ngram that details the frequency of “climate crisis” (on a different scale) over the same period, showing first a rise towards 2009, then a decline before virtually exponential growth towards the end. Both graphs also show a similarity with media attention over time (see also Figure 1).

*Source:* see Google, n.d.

The power of the term “climate change” offers an interesting lesson about the importance and flexibility of terminology and its uses. For the most part, its success in the discursive evolution (see Figure 2) draws from the fact that it is the preferred term of the scientific community. For climate scientists, this term serves as a reminder that global warming is just one aspect of a changing climactic system. This highlights the diverse effects, feedback mechanisms, and their interdependencies that make climate science and politics so complex. Through this complexity, the term also situates humans and their societies as an integral part of the climate *system*. However, part of the term’s dominance is also due to its openness to opposite uses. Latching on to the vocabulary about “change” instead of “warming” has, for example, been a preferred strategy of many fossil fuel lobbyists when working against climate action (Boykoff, 2011; see also Luntz, 2002, the often-cited memo promoting climate *change* as a terminology for supporting climate). Talking about change has, in their view, offered useful affordances: it helps to leave

the direction of the change blurred; also, it can naturalise this change (climate changes *itself*), and by embracing the systemic complexity of climate science, the term helps to emphasise uncertainties.

The term “climate crisis” is a newcomer to this broad discursive landscape (see Figure 2), but it captures an important new sense of the public discourse in recent years. We will elaborate on some of the potentials of this wording in the next section; before that, however, it is useful to reflect briefly on the specific conjuncture of actors and factors that have supported the rise of the concept of crisis.

Important groundwork to the crisis framing was provided in the report of the Intergovernmental Panel for Climate Change, *Global Warming of 1.5 °C* (IPCC, 2018a). This special report had its roots in the negotiations of the Paris Agreement from 2015 (COP21). As part of the final consensus on the Paris Agreement related to the common global target of no more than 2 degrees of average temperature rise, the final text also stressed the importance of keeping a more ambitious mitigation target on the agenda. This additional level of ambition was forcefully argued for by a coalition of countries most vulnerable to climate change, given the prediction that the 2-degree goal – even if it were reached – would jeopardise the livelihoods in these locations.

While the 1.5 °C report did not provide any new dramatic scientific revelations; in retrospect, it provided an update that built the ground for the “crisis” frame. The panel was tasked with considering what the *difference* between a temperature rise of 1.5 and 2 degrees would mean. This prompted the conclusion that a 1.5-degree limit might be possible, but difficult to achieve, since considerable climate change was already underway. It also synthesised the view that the level of ambition in mitigation made a distinct difference in terms of the human and economic costs of adaptation. Additionally, the report propped up the IPCC communication effort (IPCC, 2018b). In speaking about the need for the “rapid” and “unprecedented” transformation of societies, it offered important traction for the crisis framing.

The work of translating this evidence to a crisis frame was no doubt a wider effort. Hence, it might be true that the communication efforts of the 1.5 °C report remained within the cautious and somewhat narrow contours of the “information deficit” model on science communication (Boykoff, 2019; see also Kunelius et al, 2017a; Cook & Overpeck, 2019). However, the combination of “unprecedented” and “systemic” as a scientifically authorised and governmentally recognised wording opened new discursive affordance for various social actors. In the public reception and following conversations, then, IPCC’s message was more powerfully linked to the idea of “system change”. Of course, activists and scholars (e.g., Dryzek et al., 2013; Klein, 2015) had been arguing this for many years, but at least temporarily, something capitulated during 2018 and 2019. Many professional media outlets adopted new editorial policies (perhaps most notably *The Guardian* in its Climate Pledge; see The Guardian, 2019), committing to talk about “crisis” or even “catastrophe” and “emergency”. Political institutions followed suit: in

late 2019, the European Parliament declared a “climate emergency” (European Parliament, 2019).

Another crucial factor in raising attention and spreading the crisis frame was the unique global youth movement focused on school strikes and worldwide demonstrations. Remarkably, from the latter half of 2018, the Swedish activist Greta Thunberg moved, within a year, from a lone demonstrator to a global influencer with around 5 million followers on Twitter, a nominee for the Nobel Peace Prize, and a speaker in the global arenas of influential decision-makers. This new generation of climate activists managed to not only drive the crisis frame further, but also to add new elements to it. While highlighting the message of science (“born at 375 ppm”, Thunberg’s Twitter-bio declares; see Thunberg, n.d.), the youth actors have drawn exceptional moral authority from the fact that they speak in the name of the future, thereby connecting to issues of intergenerational climate injustice (Skillington, 2019). With their emphasis on the existential and moral crisis of climate change, they have, of course, challenged the denialists and sceptics of climate science. But more importantly, they have strengthened the ambition of demanding more decisive action from the seemingly “climate-friendly” established politicians and parties. (On the sociological and political character of the youth movement, see De Moor et al., 2020; Emilsson et al., 2020, Han & Ahn, 2020; Marquardt, 2020).

In a way, they offer an example of what Hannah Arendt (1970) called “communicative power”, which characterises the appearance of a new group and identity bringing forth a fresh and challenging new horizon of political action. In carving out this identity, the framing of climate change as a *crisis* was a crucial device. Furthermore, in facilitating this “space of appearance” (Arendt, 1958), the willingness of mainstream media actors to recognise the moral authority of the youth also strengthened their crisis message. Thereby, the movement showed how the media can potentially become a space where alternative worlds could be imagined (Hanafin, 2012; Roosvall & Tegelberg, 2018).

Embodying the urgency of a crisis, within a lifetime, was the core of the youth movement messaging. However, the resonance of the crisis frame was also built by the appearance of other political factors. During the low media attention to climate of the early 2010s (see Figure 1), the “global rise of populism” (e.g., Moffitt, 2016; Müller, 2016) and the wave of authoritarian “cultural backlash” (Norris & Inglehart, 2018) had forcefully disrupted the established political orders. Building successful political movements on the basis of a narrative in which globalisation-friendly elites have betrayed “the people”, these movements had consolidated a new political bloc and identity, winning elections and gaining power in government. In several democracies, this development led to troubling constitutional challenges and changes. The new political cleavages, an increased sense of polarisation, and the problems of sustainable, long-term decision-making capacity of political systems have also injected a sense of crisis into the public discourse. Although the primary talking points of populist movements were often

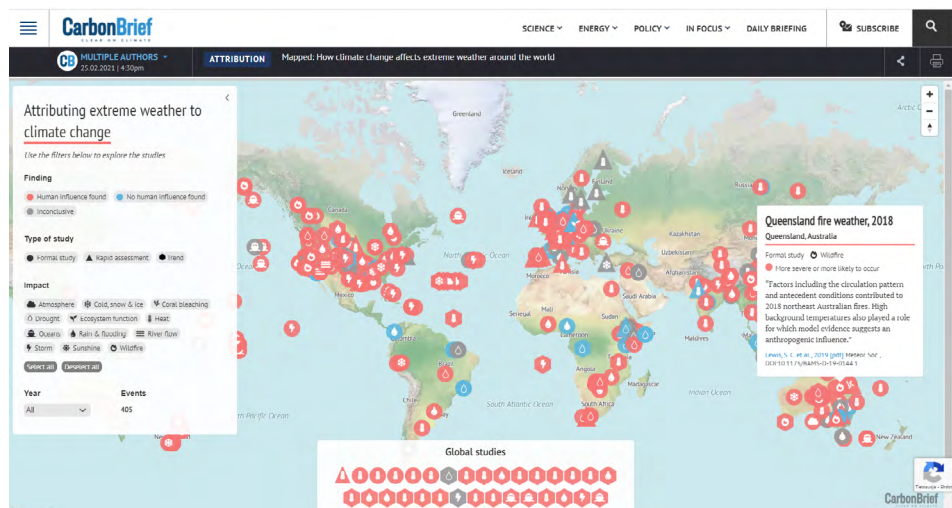
not originally focused on climate, their emphasis on inherited identities, lifestyles, and privileges often translated to resisting rapid, systemic transformations, and their reliance on nationalism and patriotism fuelled doubt about global expertise and governance. During 2018 and 2019, this broader reaction to globalisation intersected with the climate crisis frame. The right-wing populist movements decisively aligned against climate action, sometimes doubting scientific expertise, sometimes arguing against global responsibilities, and often doing both. Borrowing Timothy Mitchell's (2013) idea that twentieth-century "carbon democracies" and their political identities and imagination were inseparable from oil and fossil fuels, it makes perfect sense that the climate crisis and the populist challenge (and the crisis of democracy) arrived at the same time. In Bruno Latour's view (2018), *both* the liberal establishment's global "elites" and the nostalgic, nationalistic, narrow-minded populist movements represent the dead ends of a carbon-driven democracy.

Despite the fact that the climate crisis is a conceptual construction for what is unfolding in Earth's climate system, an important part of the growing urgency is also linked to the evidence about what is *actually going on* in "nature itself". Maxwell Boykoff captured this well in our interview in this issue: "[Young] people have been born into a world where there hasn't been a cooler than average month or year in their lifetime". Indeed, in the media coverage in 2018 and 2019, we witnessed a continued series of exceptional weather events around the world, which added to the growing alarm and sense of crisis. Devastating fires in Australia and Brazil raged for months in 2019. The smoke from Californian fires purpled the sunsets on the other side of the world in 2020, providing an eerie reminder of how connected the atmosphere actually is. Frequent simultaneous occurrences of augmented typhoons and hurricanes in the Pacific and the Caribbean added to the increasingly glocal experience of locally situated and globally spread phenomena. Concurrently, exceptional flooding disrupted life in the American Midwest (early 2019) and the UK (late 2019 and early 2020), offering citizens in the "West" a (mild) taste of what is already the worsening new normal in, for instance, India and Bangladesh. The list could go on, and the loss of lives and livelihoods and the costs of repair and rebuilding are impossible to count.

Viewing exceptional weather events as "nature's speak" is, of course, a well-developed inclination in all human cultures. However, given the political stakes around climate change, it is not surprising that weather attribution has become an increasingly important topic and an area in which important steps forward have emerged. Uncertainties in this attribution will always remain, and trying to speed up science to meet the demands of the breaking news media rhythm will remain problematic. However, a great deal of concerted effort has been put into developing ways to assess and report on the role of climate change in dramatic weather events (for a review, see Painter & Hassol, 2020). The growing ability of journalists to bridge the gap between weather events and climate change has forcefully added to the constant reminder of the link between these dramatic

events and this long, slow process. New and innovative ways of overcoming this event-process gap without losing touch with scientific practice are developing all the time. Take, for instance, the recent map put together by Carbon Brief, an information and news site working in the climate-science-policy interface (see Figure 3). Collecting different “events” from around the world and linking them to scientific assessments about their connections to climate change serves, literally, to connect the dots, without compromising scientific validity. This gradual improvement in reporting climate science is, of course, crucial. Such nuances aside, the fact that extreme weather events happen, and that the *question* about their link is routinely raised, is itself a slow practice of building concern and alarm. Irrespective of the particular answers, the constant raising of the question “is this normal?” has gradually but persistently built the sense of the crisis.

**Figure 3** Attributing extreme weather to climate change (CarbonBrief)



*Comments:* An interactive and updated map published by Carbon Brief in February 2021, pinpointing 405 weather events and linking them to attribution studies. The symbol denoting Queensland fires of 2018 has been clicked open as an example.

*Source:* Carbon Brief, 2021

It is not easy to evaluate what a *routinised* suspicion about normality will mean. Paraphrasing Boykoff’s remark above, we are all faced with a dilemma of what “average” temperature means, if every new year is warmer than the average, which, by definition, is higher every year. Amitai Gosh (2016) has even provocatively questioned the consequences of such shifting backgrounds to modern, realistic storytelling and narration. He argues that our idea of representing the world through “events” and our ability to make sense of what “happens” can be jeopardised if the normality (everyday routines, natural laws) and taken-for-granted expectations are constantly moving.

Of course, writing about a “crisis” or a “state of emergency” in 2021 would make little sense without a reference to the global Covid-19 pandemic. Even if we



bracket out for a moment the material, biological link between the appearance of new viruses and the expansive action of human societies (of which climate change is a major sign), the Covid-19 crisis has taught us lessons about the mediated dynamics of a crisis. In the very beginning, the pandemic swept other news off the agenda, perhaps with the same logic as the financial crisis disrupting the immediate post-Copenhagen climate debate. Suddenly, national solidarities and the protection of short-term security became the overriding principles of public discourse. However, the further we have moved on in the year of lockdowns, restrictions, and vaccination hopes, the more we can observe parallels between the mediation of the climate crisis and the pandemic: the politicisation of expert knowledge, misinformation campaigns, and conspiracy theories that have also often followed the identity fault lines of other key issues of the era. This overlap (e.g., Kunelius, 2020) can be seen as a further sign of the power of the climate crisis framing (and the sense of urgency it has raised): it has not only survived the attention demands of the pandemic, but actually gained new traction. Discussions about the pandemic lockdowns as a “dress rehearsal” (Latour, 2020) for low-carbon life and debates about combining the post-pandemic economic revival with green investments are examples of this. However, at the same time, many of the points we have raised above as the background for the climate crisis are echoed in the debates around Covid-19: the heightened (and politicised) role of expertise, the re-enacting of political fault lines, and so on.

Given the concerning evidence accumulated over the years, the rise of the notion of “climate crisis” has been slow and entangled with other transnationally recognisable trends. Taken together, the conjuncture looks like a historical challenge to our social, cultural, and political life. Following (and possibly expanding on) Sheila Jasanoff’s (2003) work, we could argue that our talk about the climate crisis is a symptom of a “constitutional moment”, in which our inherited notions about identity and community, consumption, citizenship, the role of (global, expert) knowledge, and the legitimate uses of political power are being questioned and renegotiated. The media’s role in this process is many-sided, diffuse, and complex.

### Crisis as a (media) framework: Contradictory potentials and limits

Naming things has consequences. Identifying a frame opens some interpretations and plays down others.

One way to pose questions around this framing is to reach back to the theory of speech acts (Austin, 1975). For media research, the power of *performative* speech acts (Fowler, 1991) is particularly interesting. Simple, institutionally grounded performative speech acts are rather straightforward (e.g., naming a ship or pronouncing two people married). When something is said, something happens, changes, or is established, which can then be seen in a new light. Such acts also show how the power of performative speech is often anchored in the authority of institutions and their representatives: those who do the pronouncing

and declaring. If uttered within the news genre with its inherent truth claims, other forms of speech acts may carry traces of this performative potential. However, in the increasingly open-ended contexts of mediated public debates, and in the heat of media “events”, this becomes much more complex. Speech act theorisation, then, can offer some important insights into the pronunciation of a climate crisis in and through the media. Here, the ongoing Covid-19 experience provides some telling lessons. On the one hand, it speaks powerfully on behalf of the performative authority of national institutions. The processes that played out in many countries during early 2020 showed how effective the declaration of a crisis can be and how the state can facilitate exceptionally dramatic disruptions of everyday routines and usher in new rules by naming the situation as “exceptional” or an “emergency”. Around the world, we have concurrently seen how, in liberal democracies, basic civil rights were (temporarily) suspended in efforts to battle the pandemic, often relying on the expert advice of epidemiologists, but also tapping into the sense of (national) solidarity. We have also witnessed baffling, outright irresponsible political reactions that led to catastrophic misjudgements, the spread of falsehoods and conspiracy theories, and the neglect of rational, evidence-based policies. Thus, while a “crisis” pronunciation can be useful, it can also potentially lead to volatile acts. This points to the semiotic open-endedness of mediated crises, in which “performative interactions involve constant chances for misfires, mismatches, or disjuncture” (Wagner-Pacifici, 2017: 21). Naming climate change a crisis is thus merely an opening gambit in the complex interaction of actions in which the struggle for authority unfolds.

Declaring a climate crisis is a rhetorical move that also suggests a particular temporality. A crisis is a moment (sometimes an extended one) in time, something that naturally assumes something beyond it. It can spontaneously – as the Covid-19 debates so clearly remind us – raise the expectations of “returning” or “passing through”. In this sense, crises are phenomena that are solved, tests *against* which populations and their efforts and sacrifices are mobilised. Crises are situations that demand a campaign and a collective defence, and societies develop crisis management plans and national and local preparedness policies for how to deal with such imagined risks. The pandemic, for sure, has heightened our preparedness for global viruses, forcing us to assume that there *will be* a next time *after* we have survived this one. As a systemic and global risk, however, the climate crisis is somewhat different. It questions the very foundation of our societies (i.e., our sources of energy and the ways these are transformed into our ways of life) and the constitution of our identity (drawing on human vs. nature distinctions). It thus poses, at the least, a *transformational* challenge – and perhaps even an existential one – in terms of the ways in which we view ourselves and our societies. If we succeed in the “defence” that the climate crisis evokes (the equivalent of lockdowns, vaccinations, restrictions, etc., evoked by the pandemic emergency), we will not be the same when the crisis is over. Indeed, it is difficult to see what would constitute the “after” period of climate crisis, as we have no reason to expect that since we have

destabilised the Earth's dynamic climactic system the “normal” – or even a “new balance” – would be established any time soon. Nonetheless, there are preferable, as well as disastrous, futures – scenarios in which we could have overcome or failed to overcome some of the most acute conditions of the crisis.

A crisis intensifies the weight of the present and raises the moral stakes for communities. Clearly, this idea of a decisive moment (a closing window in which we must act, but that is still open) is at the core of the power of the notion of climate crisis. As we argued above, the recent youth movements are an example of this, embodying a moral weight of not only an intergenerationally unjust future, but also the spatial and social injustice of the diverse severity of effects and adaptation capacity around the world. Iris Marion Young (2013), for one, has forcefully argued that the responsibility for justice falls most heavily on those with power. The media have tremendous power to reach and connect people, to put issues on the agenda, and to name and frame them there. The consequent questions about media's responsibility stretch from mainstream to social media platforms and from news to videogame design (all of which are discussed in this issue), and the responsibility encompasses not only relating to natural science concerns about ppm's and political science concerns about climate politics, but also to social and humanistic science concerns about how we see ourselves in the world and thereby may be inclined to act in and for it.

Drawing on the World Values Survey and the lessons from several studies on conservation willingness and behaviour, as well as biospheric concern, Gerhardt Reese (2016) suggests that if people think of themselves as global citizens or part of a common human identity, they are also more inclined to act for the environment and, moreover, to do it in a way that incorporates justice perspectives. While ideas on a “common human identity” may sound overly idealistic or suspiciously apolitical (possibly disregarding structural differences) they can in fact be – if we give heed to Reese's (2016: 524) hypothesis – political: “A common human identity elicits an inclusive representation of the human world, resulting in environmental justice beliefs considering all individuals and social groups”. For instance, a higher identification with a superordinate group (all of humanity) leads to a greater focus on the common good (Huo et al., 1996, cited in Reese, 2016: 527). These ideas fit well with Young's (2013) social connection model, which describes how responsibility for justice can and must transgress national borders through social connections. There is, then, a potential that such understandings of our place in the world could help facilitate a solidarity that goes beyond the often nationally limited solidarity of, for instance, the Covid-19 crisis, and thus could be a factor in evoking the environmental justice actions envisioned by Reese, although empirical research on climate communication suggests that the scale of the topic (Jensen, 2017) and ideological identifications (e.g., Leiserowitz et al., 2009) can be powerful factors against it.

A crisis frame could also reshape institutional and professional practices. It could raise the stakes for different actors, for instance by encouraging scientists

or journalists to play advocacy roles. For years, it has been possible for many kinds of actors, as well as denialists and delayers, to participate in the debate about climate change, by arguing that the evidence is uncertain or that the part of human activity in this change is marginal. As the crisis frame enters and begins to shape the discourse – as a starting point – it can also reposition these actors. In fact, several media companies have already adopted policies against the “bias by balance” routines (Boykoff & Boykoff, 2004).

The climate crisis can also be seen as a re-articulation of the alarmism around which several scholars have criticised the media. As Maxwell Boykoff puts it: “There is an [important] distinction between alarmism and the [idea that] these are alarming times”. At the same time, however, the spectre of inactivity, fatalism, and attempts to deny the sense of crisis have in some ways gained strength. Effective political argumentation against climate action no longer always explicitly denies the science, but – staying within the notion of a global crisis – it can be used to argue for delayed action and for putting a nation’s citizens and interests first.

Increasingly, as climate questions intersect with local economic and political interests, climate politics are also framed in the media via the “political game” frame. While this might suggest an implicit acceptance of the need for change and a move towards debating *what* should be done, the political game frame also implies an audience position of inaction (Roosvall & Tegelberg, 2020). Bluntly put, it can encourage audiences to go get the popcorn, sit back, and watch to see which combatant will win the battle between the nation-state representatives. Who will *not* win is the planet and humanity at large. The countermeasure against this is the issue framing of climate change, which focuses on its effects. This has the potential to include “glocal” aspects and voices, and could thus strengthen the sense of a common human identity and evoke environmental action. This is the type of framing that, with new language, could be termed a global crisis framing, and hence enhance the urgency of actions directed towards mitigating the effects globally.

Overall, conceptualising climate change as a crisis clearly opens new affordances in both public and political debates. One crucial point then becomes, as Maxwell Boykoff put it in our interview (this issue), the “distinction between alarmism and the [idea that] these are alarming times”. If we take seriously this “constitutional moment” that the crisis talk signifies, it also poses the question about how the current conjuncture changes the agenda and role of media research.

## The issue in the context of media research on climate (crisis)

Studying the role of communication and media in the understanding and tackling of climate change has a history. As a background, it is useful to glance at this growing field of study (e.g., Moser 2016; Agin & Karlsson, 2021). In her review of the *communication* literature in 2016, Susan Moser (see also Moser, 2009) highlighted several key concerns she felt demanded more attention. She urged communication scholars to focus on more varied forms of cultural expression

(music, poetry, theatre, etc.) and to investigate how interaction and dialogue can shape people's attitudes. She also called for a move from studying awareness to understanding action. In relation to the media, her key concern was the relationship between the increasingly diverse and fragmented media landscape and the highly polarised political contexts.

In their recent review on *media* research, Agin and Karlsson (2021) showed that studies still overtly focus on the quantitative content analysis of traditional news media in the West (see also Schäfer & Schlichting, 2014). The authors call for more international research designs and a widening of the focus on politicians, government agencies, nongovernmental organisations, and corporations. Overall, they call for abandoning “tried-and-true research” that has low citation levels and thus mostly seems to serve “self-validation” purposes (Agin & Karlsson, 2021: 443). In a different way, but also emphasising a more innovative and diverse research agenda, Olausson and Berglez (2014) called for a focus on the circulation of discourses (e.g., production, content, and reception), using more interdisciplinary approaches, on a global scale of research, and overcoming the theory-practice divide.

More specifically, Schäfer and Painter (2020) recently looked at the *journalism* scholarship. They highlight that the ecosystem of climate communication (and, in particular, journalism) is changing, but research is still too focused on traditional media outlets and their content or output (instead of production and sources). They also point to several well-documented changes in the media landscape that have diversified the field. Journalists seem to have a wider range of roles to draw from, from the traditional “gatekeepers” of knowledge to the “curators of information” and “advocates” of climate policy (see also, e.g., Kunelius et al., 2017b; Brüggemann, 2018).

This issue of *Nordic Journal of Media Studies* presents a set of articles that address the intersection of media and the climate crisis from many angles and with a refreshing diversity of data, methods, and conceptual frameworks. Many of them constructively underline how a sense of crisis and a related inclination to act can be evoked, for instance, by focusing on the (potential) roles of the too-seldom-researched visualisations of climate change. Others try out new methods and seek to further our theoretical understanding of the current situation, while yet others delve into the particular critical potentialities of specific media genres, from local journalism to videogames. Many of the articles deal with what Chantal Mouffe (2005, 2013) identifies as the traditional institutional *politics*, as this appears and is discussed in the social and mainstream media, as well as what she names *the political* – that is, the more ideological and aesthetic sides of politics, represented by sites that may express fundamental opposition to the mainstream practices and makes room for imaginations of alternative worlds.

The issue opens with Annika Egan Sjölander's article, the only piece that focuses directly on journalism. It goes beyond the “tried-and-true” research by zooming in on local, everyday life and concrete political choices rather than the

more common national and global level of coverage. Her article underlines the importance of looking at the ways in which the climate challenges play out in local politics and how important the role of local journalism is in this process of negotiating the “fit” between global concerns and local sense-making (see Brüggemann & Rödder, 2020). Sjölander points out that as actual decisions about mitigation and adaptation are formed, local tensions between different actors and interests inevitably play out in smaller communities, and the networks of local actors are crucial resources for “domesticating” climate issues. At the same time, Sjölander shows how the attempts of cities to latch on to the branding potential of being “climate friendly” shape the conditions in which journalists work. Place branding not only offers journalists a useful frame for keeping the climate issue on the agenda, but also challenges them to demand accountability from local decision-makers, thus maintaining and updating their professional values in the new context provided by the climate crisis.

Sonja Savolainen and Tuomas Ylä-Anttila investigate how the climate crisis energised the social movements in Finland to interact with political parties on Twitter before and after the 2019 parliamentary elections. Searching for the dynamics between contestation and alliance building, they show how the Green Party and the Left Alliance formed coalitions with the climate movement before the elections but then distanced themselves from the movement as they became part of the ruling government coalition. This suggests the need for further research on how the social media platforms enable flexible alliance-distance movements in politics and how social media blurs the boundaries between parties and social movement activists. As social media ties these two groups together in new ways, the temporary intensification of such “virtual elites” can converge with party identities. This suggests that social media might play an important role in how the climate crisis overlaps or aligns with other contemporary political issues and fault lines, and how traditional political parties mediate the initiatives of social movements to more institutionalised spheres of policy.

Kjell Vowles and Martin Hultman also tackle the relationship of political mobilisation, new media, and climate change in their analysis of the Swedish right-wing’s engagement with the climate crisis. As the Swedish legacy media expanded its climate coverage (following the global trend) – especially in 2019 in connection to weather events and the Fridays for Future movement – climate change also gained unprecedented attention in Sweden’s increasingly influential far-right media networks, in which it quickly grew from a rarely discussed topic to a very important issue. With a critical discourse analysis of the Swedish far-right digital media sites during 2018–2019, Vowles and Hultman expose the use of conspiracy theories, anti-establishment rhetoric and nationalistic arguments. They also illuminate the discursive strategies of sourcing, circulating, citing, and using ironic quotation marks, which helped to construct the community of denialism in which the climate crisis became the “climate hoax”. Their work shows how political action can turn the affordances of the networked public sphere

into the building blocks of echo chambers and embryonic, politically polarised “media ecosystems” (Benkler & al., 2018; see also Bruns, 2018). Understanding the local intersections between the global issue and the processes of polarisation is an essential part of future study on media and climate.

The social media interaction in election campaigns (Savolainen & Ylä-Anttila) and the far-right denialists’ community building (Vowles & Hultman) show how the climate crisis is mediated in different parts of the political spectrum (left and right, respectively) and in different kinds of political moments. They focus on the mediated dynamics of how the climate crisis shapes political identities. Antal Wozniak, in turn, looks at how the media representations of political, performative contestations are interpreted by media users. Extending an important thread of the “circuit of mediation” of social movements (Cammaerts, 2018), he first investigates how the climate crisis is visualised (co-productively) by advocacy groups and the media, and then he takes an important step forward in asking how media recipients engage with this type of imagery. Wozniak’s findings suggest that news photos rarely manage to communicate the intended meaning of the symbolic actions of the protesters. Through an analysis of visual frame processing, he exposes elements of the image-viewer relationship that often disrupt the intended messaging of protesters, but he also finds clues for more effective communication via symbolic action photography.

Yan Xia, Ted Hsuan Yun Chen, and Mikko Kivelä provide a different perspective on the question of “interpretation” (or re-mediation, Jensen, 2017) related to climate change communication. Building on network analysis and introducing a new way of operationalising a measure for the virality of tweets, they analysed how different parts of the Twitter-sphere circulated different kinds of tweets in the discussion around Greta Thunberg’s nomination for the Nobel Peace Prize in 2019. Perhaps not surprisingly, they found that the retweet networks of this episode were polarised into two clearly separated groups of activists and sceptics. The study then zooms in on what kinds of tweets held these communities together. Using a distinction between popularity (number of retweets) and virality (probability of spreading), they show the differences between the viral and popular themes in the two communities. The most viral themes in each group highlight the different types of bonds tying the community together. Xia and colleagues’ article offers another example of how different identities and politics shape the actual outcome of climate communication and highlights how identifying echo chambers and polarisation is merely the first step in understanding how technology and politics interact (Dahlgren, 2021).

John Hartley, Indrek Ibrus, and Maarja Ojamaa sketch a framework for a global-level theorisation of the new political divisions that some of the contributions (e.g., Vowles & Hultman; Xia et al.) have tackled empirically. They look at the intersecting moment of the climate and the Covid-19 crises and argue that the global emergence of “girl-led climate activism” and far-right Covid-19 conspiracy groups provide examples of how new social “classes” are organising

themselves around the means of their own mediation. Building on Juri Lotman's model of the semiosphere, they argue that media studies should think in terms of "systematic evolutionary-complexity" and try to link the study of human culture to the biosphere and geosphere. The consequent cultural science they envision would aim at superseding inherited adversarial models in both mainstream media and media studies.

Sofie Thorsen and Cecilie Astrupgaard offer an example of an ambitious empirical analysis of social media data. Their work is an explorative attempt to bridge several shortcomings that have troubled our understanding of the emerging social media landscape. Their article addresses 1) the need to study social media across different platforms, 2) the importance of visuals in social media communication, 3) the necessity of combining Big Data analysis with qualitative insights, and 4) the possibilities of capturing the temporal and cross-platform dynamics of social media. Building on a data-intensive digital methods framework (Rogers, 2019; Lindgren, 2020), the authors create a research design combining image recognition and visual network analysis, and subsequently demonstrate the potential application of the methodology with two case studies of visual communication on Instagram and Twitter.

If Hartley and colleagues stretch the climate communication argument spatially to a new scale, and Thorsen and Astrupgaard explore the visual Big Data empirical terrain, Jenni Niemelä-Nyrhinen and Niina Uusitalo seek a different kind of new horizon. They provide an explorative discussion on "aesthetic practices" that could help us sensitise ourselves to alternative ways of recognising the human–nature relation. In their argumentation, visual representations play a key role, as their reading of a number of visual artworks suggests ways in which the climate crisis could evoke more alternative reflection. They draw on Jaques Ranciere's approach to "the politics of aesthetics" and juxtapose our existing visual climate change tropes (and stereotypes) to specific aesthetic practices articulated in visual art. By doing so, they argue that proto-political aesthetic practices can pose disturbing but constructive questions about connectedness, broaden our views on issues of agency, and highlight counter-discourses on consumerism. In a world where people often communicate their everyday life through mundane visual representations, the theorising potential of the political awareness of aesthetics opens up new ground for understanding personal engagement and situatedness in the midst of crisis. A drastic shift of the mainstream media imagery of climate change (Schäfer, 2021) might not be just around the corner, but as the crisis increasingly saturates people's lives, the role of the arts and creative communication (as ways of both representing and investigating the world) can prepare the ground for a new kind of political imagination.

The last article of the issue expands the debate about the mediation of climate crisis by addressing the issue of time and temporality (see Bødker & Morris, forthcoming). Laura op de Beke does this through the analysis of a relatively new genre of climate communication: climate videogames. Noting that growth-ori-



ented, techno-futurist narratives are predominant in climate change videogames, op de Beke argues that this is due to the fact that climate change videogames are privileged expressions of premediation. Premediation, a concept drawn from the work of Richard Grusin, points to a particular construction of time in communication that cultivates a multiplicity of future scenarios but limits them to serve the political concerns of the present moment. Premediation, backed by the force of repetition (both in the media more broadly and in videogames more specifically), creates a sense of inevitability and predictability. The critical reading of game examples by op de Beke shows that the “iterative, branching temporality at work in this logic” dominates many videogames. Hence, she argues that in order to engage with the climate crisis more productively, games must develop temporalities in which the potentiality of the future is better and more broadly preserved.

Finally, we wrap up the issue with a short interview with one of the defining figures in the field of climate communication. Maxwell Boykoff has been a major force in shaping global understanding on the role of media in tackling the challenge of climate change. His work has – with impressive breadth, clarity, and impact – tackled issues ranging from professional climate journalism and problems of science communication to the cultural aspects of mediating climate concerns. Talking about his latest book, *Creative (Climate) Communication* (2019), Boykoff emphasises the need to engage with climate change on new platforms and in new modes of communication.

It is now time to let the articles speak for themselves, as they individually and collectively address media and the climate crisis from diverse angles and with multiple methods, in and on a variety of media genres and platforms. It is our hope that the issue thus contributes to furthering the discussion of the intersection between mediation, politics (in the widest meaning), and the climate crisis, among other things through how the increasing complexity of the media landscape – technologically as well as politically – is tackled by an increasing complexity of media research approaches. We will close with a quotation from Susan Moser (2016: 361), who, some five years ago, in her review on the field of climate communication, addressed the scholars in this field:

Enabling, mirroring, and facilitating what may be the largest social transformation in human history would appear far more demanding a role than we have been willing to take on to date. Doing so would change our topics, foci, approaches, and partners in both research and practice. It is time to contemplate these deeper questions now, and challenge ourselves to consider what that transformational journey may ask of us in terms of competences, resources, institutional support, and interaction with each other.

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