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Personalising climate change—how activists from Fridays for Future visualise climate action on Instagram

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The visual communication of climate change by social movements has become an emerging subject of research in recent years. Much of the existing literature on visual climate change communication focuses on how environmental movements and protests are depicted by mainstream media outlets. This exploratory study examines the visual climate change communication by social movements themselves. Its focus is on one ‘new narrator’ in the mediated politics of climate change: Fridays for Future (FFF), arguably one of the most significant communicators of climate change. The research question seeks to understand how FFF activists narrate climate action through images posted on Instagram. I discuss examples from major branches of FFF and contribute to existing research by emphasising personalisation as a powerful tool in climate storytelling. The paper’s visual thematic analysis presents three themes that illustrate the personalisation of climate storytelling by FFF activists: localising the effects of global climate change, using performances to convey climate messages, and visualising contentious politics. The implications of this research further underpin the need to recognise climate activists as important actors in the visual communication of climate change.

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Introduction

Fridays for Future (FFF) has become an authoritative voice in public climate change communication and mobilisation (Berker and Pollex, 2022). Starting with a teenager, Greta Thunberg, who began demonstrating in August 2018 outside the Swedish parliament to demand greater action on climate change, FFF had mobilised millions around the world by a year later (Taylor et al. 2019). This exploratory study presents research from a one-year project (2021–2022) on social movements' climate change communication, something which has become an emerging subject of study in recent years (see also Belotti et al., 2022; Stammen and Meissner, 2022; Wahlström et al., 2019; Zamponi et al., 2022). It examines how FFF activists visually narrate climate action on Instagram to wider audiences. Claiming that the visual dimension is the most crucial in the movement's climate activism (see also Casas and Williams, 2019; Doerr, 2017; Doerr et al., 2013; Mattoni and Teune, 2014; Uldam and Askanius, 2013), I focus on Instagram—a visual medium par excellence (Leaver et al., 2020). I explore in more detail one particular strategy of FFF's visual climate storytelling: personalising climate change.

The focus on personalisation is my contribution to a rich literature on the visual communication of climate change (Anderson, 2009; Born, 2019; Culloty et al., 2019; DiFrancesco and Young, 2011; O'Neill and Smith, 2014; Painter et al., 2018; Schneider and Nocke, 2014). I draw on scholarship which has explored the role of personalisation in social media and its impact on social movements (Bennett and Segerberg, 2012; Gerbaudo, 2012; Milan, 2015). For instance, Bennett and Segerberg (2012) have shown that personalisation in social media can lead to more adaptable forms of activism, where collective identity is built through shared personal expressions. Gerbaudo (2012) points to the critical role of social media in providing a space for the personal narratives of activists which help create a sense of collective identities and actions. Milan (2015: p. 894) argues that social media enables “personalised yet universal narratives,” allowing individual stories and experiences to resonate with broader social and political themes. This would reflect a shift in how social movements construct their identities and mobilise supporters, emphasising the centrality of personalisation in contemporary activism. Others contend that the use of personalised visual strategies can help to make messages more credible and relatable to younger audiences (Coudry and Hepp, 2017; Parmelee et al., 2022).

I refer to personalisation as the strategy by which individual FFF activists leverage their unique perspectives, stories and experiences to craft a personalised narrative of climate change and activism (see also San Cornelio et al., 2024). I thus understand personalised communication in terms of the individual rather than necessarily as part of a coherent organisation or coalition, which centrally customises the personalisation of political action (see for instance Bennett and Segerberg, 2011). Personalising climate change may take the form of self-made imagery, videos or stories that reflect the activists' individual engagement with climate action. While current scholarship has made important contributions to our improved understanding of how climate protests are visualised by media outlets (e.g. Hayes and O'Neill, 2021; Painter et al., 2018; Schäfer and Schlichting, 2014), I seek to emphasise that climate activists and movements themselves are important actors in the visual communication of climate change (see also Doerr et al., 2015; Hopke and Hestres, 2018).

The next section situates the piece in the wider debate of visual climate change communication. I then outline the paper's research design. The empirical section discusses personalised storytelling as a powerful tool for climate narratives. I present

three themes which illustrate the personalisation of climate storytelling by FFF activists: localising the effects of global climate change, using performances to convey climate messages and visualising contentious politics. The concluding section addresses the implications of this study and points to further avenues of research.

On protest paradigms and personalisation in (social) media narratives about climate change

Communicating global climate change to public audiences has been an ongoing subject of study for many scholars in recent years. Much of the existing literature on visual climate change communication focuses on how environmental movements and protests are visually depicted by mainstream media outlets (Bergmann and Ossewaarde, 2020; Born, 2019; DiFrancesco and Young, 2011; Hayes and O'Neill, 2021; O'Neill, 2013; Painter et al., 2018). Scholars in communication research have introduced the term “protest paradigm” to describe the tendency of news media to (visually) portray social protests as deviant, disruptive or violent, even when they are predominantly peaceful (Boyle et al., 2012; Di Ciccio, 2010; Kilgo and Harlow, 2019; Lee, 2014). The mainstream media's dependence on official sources and framing of protests as disruptions would often marginalise activists and their causes (Corrigall-Brown and Wilkes, 2012). Consequently, the dominance of official narratives can silence perspectives that challenge existing power structures and hierarchies, resulting in their downplay or even disparagement (von Zabern and Tulloch, 2021).

As a result, climate protests have frequently fallen into the protest paradigm as traditional media organisations, with their extensive audiences and budgets, have wielded significant influence over news content (Hayes and O'Neill, 2021). With the rise of social media, however, these conditions have changed radically. Now climate movements and other social groups have the opportunity to tell their own stories and directly communicate to and with a wider public; including voices, which, for instance, are sceptical of or deny climate change (Chen et al., 2022; Kidd and McIntosh, 2016). One way to gain attention on social media is to generate emotionally appealing content in the form of memes, collages or performances which provoke responses and attract followers. This has led some observers to refer to FFF as ‘new narrators’ in the mediated politics of climate change (Bevan et al., 2020: p. 1). Recent climate protests have thus been framed less by traditional media or elite stakeholders and increasingly by direct engagement with the online sphere.

For instance, Chen et al. (2022) found a significant divergence between the framing of the climate movement by mainstream media and by movement actors themselves on Twitter. Mainstream media primarily focused on global politicians' (in)action toward climate policy, the consequences of climate change and the industry's response to the climate crisis. Conversely, climate movement actors on Twitter emphasised advocating for political actions, policy changes as well as addressing social justice issues related to climate change (see also Raftopoulos and Specht, 2022). These findings highlight the transformative power of social media platforms in shaping discourses around political issues and collective action. They also illustrate the potential for these platforms to subvert the traditional protest paradigm found in mainstream media. Beyond this more asymmetrical relationship between climate movements and traditional media (see McCurdy, 2012), which suggests that traditional media often have more influence and control over the narrative surrounding climate-related issues compared to climate groups, social media allows climate activists (as well as deniers) to spread their narratives to global audiences

on their own terms. It is within this context that this study aims to examine how Instagram, another popular social media platform, is used for climate activism by FFF.

At the same time, there is a growing body of work, which examines FFF, arguably one of the most successful climate movements in recent years, from various academic disciplines. These include communication and media studies (e.g. Haßler et al., 2021; von Zabern and Tulloch, 2021), environmental psychology (e.g. Sisco et al., 2021; Wallis and Loy, 2021) as well as social movement studies (e.g. Hunger and Hutter, 2021; Svensson and Wahlström, 2021). While this scholarship examines FFF with a wide range of questions about the attitudes, behaviours and motivations of FFF activists using a diverse set of methodological tools including computational social science and qualitative methods, a common thread among them is their analytical focus on materials and sources primarily based on language and text.

In contrast, this paper explores how FFF *visually* mediates climate action on social media. I build on work that has provided valuable insights into the use of visuals by social movements (e.g. Doerr et al., 2013; Doerr et al., 2015; McGarry et al., 2019; Neumayer and Rossi, 2018) and add my discussion of FFF activists' personalised climate storytelling. I acknowledge FFF as a significant visual communicator of climate change, rather than merely a subject reported on by others such as mainstream media (see e.g. Hayes and O'Neill, 2021).

For examining FFF's visual climate storytelling is still an under-addressed subject so far. An exception is Molder et al.'s (2022) analysis of Greta Thunberg's Instagram account and San Cornelio et al.'s (2024) study of environmental influencers' use of visual narratives on Instagram. Molder et al. (2022) utilise visual and textual components to scrutinise how Thunberg portrays the battle against climate change as a moral and ethical imperative. Their findings illustrate Thunberg's strategic use of emotional appeals, particularly those of hope, to inspire collective action. Climate storytelling in Thunberg's case is, hence, characterised by motivational language and visuals of her personal experience as a global celebrity. San Cornelio et al.'s (2024) examination of environmental influencers, who challenge traditional media narratives with their alternative visual stories, is insightful and, ultimately, corresponds to the paper's findings. Concluding that eco-influencers steer away from fear-based content, alternative visual narratives would often feature positive imagery, personal achievements in sustainability and elements of popular culture like memes and humour aimed at mainstreaming environmental concerns.

While acknowledging this research, this paper, however, intends to show that the personalisation of climate storytelling goes beyond celebrity or influencer status since it is not difficult to imagine that, for instance, the personal experience of a global icon like Thunberg starkly differs from, say, "ordinary" FFF activists in terms of attention, impact, resources and public perception. In other words, I illustrate how personalisation is practised on a more grassroots level by showing that "ordinary" FFF activists, the paper's subjects of study, leverage their perspectives, stories and experiences to build a personalised narrative of climate change. This personalised narrative, as I show in more detail in the empirical section, takes the form of localising the impacts of global climate change, performing climate messages and representing contentious politics visually. In this way, I add to the study of visual climate change communication, by expanding existing research on how environmental engagement, that is through the fostering of a personal connection with the climate crisis, can be mobilised and understood.

I conceptualise climate narration as the embedding of climate action into a story that better corresponds with the personal experiences of individuals. This can range from narratives about

the impacts of climate change to stories of climate action. Personalisation is hence part of climate change narratives. So while personalisation speaks to the 'who' of these narratives, emphasising the individual perspectives and experiences, climate narration pertains to the 'what' and 'how', outlining the content and structure of these stories. It is the interplay between personalisation and climate narration that I argue shapes the relatable and engaging narratives of climate activism disseminated by FFF activists.

I draw here on scholarship that has contended that climate storytelling facilitates a sense of agency in the fight against climate change (Bloomfield and Manktelow, 2021; De Meyer et al., 2020; Harcourt et al., 2021; Lütkes et al., 2023). De Meyer et al., for example, propose adding to climate communication 'agency as a story structure' (2021: p. 6). By highlighting agency within a story plot, examples of action are shown to individuals or groups which help to enhance their sense of efficacy in addressing climate change issues. Scientific knowledge about climate change, usually heavily imbued with jargon, would be easier to understand and process and could initiate a deeper commitment on the part of the individual in addressing climate change (Harcourt et al., 2021). Lütkes et al. (2023) show the importance of storytelling in climate communication to showcase potential solutions and persuade individuals to actively participate in social and political transformation initiatives. I show that FFF activists seek to increase feelings of self-efficacy by personalising climate protests on social media rather than depicting them as an anonymous mass.

Research design

I discuss personalisation through a variety of content types shared on Instagram by FFF activists. These include collages, memes, videos and other performances that are grounded in the activists' personal experiences and interpretations of climate change and activism. I adopted an inductive approach to data analysis using grounded theory techniques (Charmaz, 2014). This includes approaching the empirical material—about 400 posts in total covering the time span between 2019 and 2022 when the project ended (see below)—in an open manner, that is without pre-conceived categorisations in order to answer the research question of how FFF activists visually narrate climate action on Instagram. The open coding as well as the data-driven and iterative process is crucial for the research as it allows unexpected patterns or themes to emerge directly from the visual content. This ensures that the analysis remains grounded in the actual data rather than being constrained by the researcher's initial assumptions or theoretical biases. In this way, the research design is flexible and evolves as I engage with the empirical material.

The method chosen draws on scholarship which has used (visual) thematic analysis to identify, analyse and report patterns in (visual) data (e.g. Braun and Clarke, 2006; Maguire and Delahunt, 2017; Trombeta and Cox, 2022). Thematic analysis is a flexible method that can be adapted to a variety of research questions and data types, making it particularly suitable for analysing visual and textual content on social media (Maguire and Delahunt, 2017). In selecting the empirical material, I proceeded as follows.

First, I started searching and screening the Instagram presence of selected, national branches of FFF. The images selected related to climate activism, particularly the activities and messages of FFF activists. This ensured that the data was relevant to the research question. Also, the images should showcase various aspects of visual storytelling, including individual and collective actions, protest events and personal narratives related to climate change. I am aware that FFF is not one coherent and unitary social

movement. In fact, there are countless national and local chapters that operate under the FFF umbrella—making a study of ‘the’ movement virtually impossible. As a result, I opted for a research practical approach in which I examined the Instagram presence and posts of selected FFF branches only. In particular, I focused on major FFF chapters as measured by followers. Chapters with a higher number of followers can be expected to have greater visibility and influence on the platform. Their content is likely seen and interacted with by a larger audience, making them representatives of the movement’s narratives and methods of communication. Studying these chapters can provide insights into the most impactful strategies used to mobilise and engage supporters. Furthermore, major chapters are reflective of and/or may set trends within the movement’s communication strategies. Researchers can identify those patterns and themes.

Second, to maintain some geographic and cultural diversity, I examined major FFF chapters in so-called “Western”, that is France, Germany and Italy (as of November 2022: FFF France: 29k, FFF Germany: 546k, FFF Italy: 125k) and “non-Western” countries, that is Brazil, India and Mexico (FFF Brazil: 30k, FFF India: 46k, FFF Mexico: 19k) as well as the international edition of the movement (456k).¹ Such a selection helps to capture a wider range of local contexts and issues as current research on FFF usually focusses on European divisions of the climate initiative. The purpose is to illustrate that the personalisation of climate storytelling by FFF activists is visible across different socio-political contexts, geographical locations and levels of climate change impact and activism. Such a selection can allow for a more comprehensive understanding of how FFF activists adapt their narratives to local contexts while maintaining a coherent global message.

Third, I kept an eye on large-scale events, so-called global climate strikes taking place between 2019 and 2022. This period marks an important phase in the evolution of the global climate movement. FFF saw exponential growth during 2019 mobilising millions of people around the world, while the Covid-19 pandemic beginning in early 2020 posed significant challenges including the imperative of social distancing and the widespread prohibition of gathering in public spaces. By 2022, the end of the research project, vaccinations and the easing of those and other measures allowed a revival of the movement. The global climate strikes highlight moments of peak mobilisation and visibility for the climate movement. They offer insights into the increased and pointed practices of climate storytelling by FFF activists so as to mobilise supporters.

This selection process resulted in a data corpus of about 400 posts in total. Adhering to grounded theory techniques, the visual thematic analysis involved several steps. In the first step, I engaged with the visual data in depth. This included viewing the 400 Instagram posts multiple times to familiarise myself with the content, categorising initial impressions of how climate action is visually represented. The repeated engagement with the empirical material helped with the coding process. In the second step, I categorised the images based on subjects, identifying who or what is featured in the images (e.g. activists, signs, captions); settings, noting the location or environment depicted (e.g., at home, public places); and action, describing the activities or events taking place (e.g. protests, dances). Paying attention to these visual elements (e.g. subjects, settings, actions) allowed me, in a third step, then to identify and interpret the broader visual themes that recur across the dataset and that exemplify the personalisation of climate storytelling by FFF activists.

The decision to focus on Instagram stems from several key reasons. Firstly, Instagram is a prime example of a visual medium. Its core emphasis on visual content—photos and videos—makes it an excellent site of study for this research on visual storytelling

and personalisation. The image-centric nature of the platform aligns with the paper’s focus on visual climate communication. Secondly, Instagram’s audience demographics correspond with the youth-centric nature of the FFF movement. The platform has a predominantly young user base, with a significant proportion of users aged between 18 and 34 (Dixon, 2023). FFF activists utilise this channel of communication and nurture emotional appeals by engaging audiences through self-made performances incorporating humour or viral Internet trends, memes, statements by individual activists and protest signs. These forms of visual communication are familiar to and resonate with younger audiences, who consider social media as ‘their’ channels (Belotti et al., 2022). This aligns with FFF’s target demographic and their strategy of mobilising the youth for climate change activism. Lastly, Instagram’s platform affordances, such as Stories and Reels provide FFF activists with a range of tools to craft and share their climate narratives in innovative ways, enabling them to use both ephemeral and long-lasting content, leverage user interactivity and promote engagement (Leaver et al., 2020).

For reasons of transparency I like to note that in the original submission to the journal, I included three self-made collages, which were supposed to illustrate elements of the personalised approach to visual climate storytelling by FFF activists. I selected photographs that do not fully reveal the faces of activists; in some instances, faces were covered by masks, and in cases where faces were visible, I anonymised them. However, as one reviewer rightfully pointed out, uploading images on social media does not render them public meaning that permission is to be obtained, if images will be shown outside of their original context. While I do not wish to engage in a debate over whether these activists have participated in public events and thus could rightfully be shown to an audience, I aim to exercise caution regarding potential harm to youth participants (Tiidenberg, 2018). Therefore, I removed the sample collages from the original submission. However, all references related to FFF are hyperlinked in the bibliography.

Personalising visual climate storytelling

It can be noted that personalisation, as it was defined here as a way by which FFF activists present their stories to convey a personal narrative of climate action, is a recurring pattern of the movement’s climate change communication on Instagram. I present three themes that illustrate the personalisation of climate storytelling by FFF activists: localising the effects of global climate change, using performances to convey climate messages and visualising contentious politics.

Localising the effects of global climate change. The use of personalisation here is drawn from an understanding of how individual FFF activists leverage self-made imagery to make their messages personal. This includes collages, memes and videos in which activists tell stories, make statements and articulate their demands of political leaders. Individual narratives are woven together into a collective identity, thereby creating a sense of community among the activists. This sense of community is facilitated by connections across different national FFF chapters. For example, for the global climate strike on 24 September 2021, activists in one location, Mexico, held a video call with fellow protestors in other locations, such as Colombia (FFF International, 2021a). In these live calls, activists show their surrounding areas, including fellow protesters, their spaces of protest preparation and give an account of their activities. Often they explain the local background of their climate protests and report their experiences of the day (see also FFF International, 2021b, 2021c). The images and stories shared span a variety of contexts, linking local initiatives to the global campaign thus

constructing a unifying narrative of climate action. Videos, for instance, often take place in a domestic setting, at the home of activists, which is a distinct space for personal expression. In addition, short clips take place outside, usually in urban spaces, during climate protests giving a glimpse of the scale of participation.

These stories show how FFF activists not only convey individual experiences but also integrate them into a shared narrative of climate activism (see also Bennett and Segerberg, 2012). The linking of personal stories into a form of collective identity personalises the global issue of climate change and can mobilise both local and international communities through nuanced storytelling. In line with the movement's master narrative of climate justice (see also Kalt, 2021), viewers of these videos learn to what extent the consequences of climate change differ according to local conditions. A common metaphor that is often used in regard to this by climate activists is the claim that while people may find themselves in the same storm they are not all sitting in the same boat (COP 26 Coalition 2021). Rather than focusing entirely on the global consequences of climate change, activists emphasise local problems that have an impact on the day-to-day lives of their audiences. National FFF branches address domestic audiences by focussing on the local consequences of climate change and relating these to political inaction and apathy by policymakers. The focus on local issues that create problems in the audience's lives directly paves the way for action-oriented mobilisation (Chen et al., 2022).

The attempt to contextualise the global issue of climate change into specific local realities is evident in much of the imagery posted by FFF activists. The approach to highlight local or regional environmental challenges serves in many cases to critique and evaluate the effectiveness and commitment of local and national political responses to environmental crises. For instance, activists of FFF Germany, for example, focus on the European Union's reliance on fossil fuels and, in light of the war in Ukraine, German energy dependence on Russia to underscore the vulnerabilities and ethical dilemmas of such dependencies (FFF Germany, 2022a). By organising protests against the German energy company RWE, which negotiated with the government the eradication of the village of Lüzérath, a crucial symbol for German climate activism, to make space for the opencast mining of Garzweiler II, they challenge local energy policies and advocate for a transition to renewable energy sources (FFF Germany, 2022b). Activists of FFF Brazil, on the other hand, primarily address the necessity to protect rainforests and indigenous communities (FFF Brazil, 2021a, 2021b). The visuals and narratives used by the activists bring attention to deforestation, biodiversity loss and the infringement of indigenous rights, issues that are both locally significant and globally consequential. This highlights the dual responsibility of protecting local environments and contributing to global climate efforts. FFF India also engages with its domestic audience by showing activists combatting local problems such as waste management, pollution and environmental degradation in parts of India (FFF India, 2021a, 2021b). By doing so, FFF India foregrounds the everyday environmental realities faced by Indian communities pointing to the responsibility of local populations.

These examples show how FFF activists seek to educate and mobilise local communities by making the impacts of climate change tangible and immediate. The local perspectives also evaluate the adequacy of political responses at local and national levels and emphasise the need for action aligned to specific local realities.

Performing climate messages. Some of the young activists entwine their climate messages with self-made performances and

collages, which have been popularised by video-sharing platforms like TikTok (FFF International, 2021d, FFF International, 2021e). These performances often incorporate elements of humour (FFF Germany, 2022c, 2022d; FFF India, 2020a, FFF Italy, 2020a) and activists lip-syncing trending audio snippets to help videos advertising climate strikes—such as the global protest on 25 March 2022—go viral (FFF Berlin, 2022a, 2022b). Dancing to or lip-syncing popular songs to convey climate messages to younger audiences is a widely adopted personalisation strategy ((FFF Berlin, 2022c; FFF Brazil, 2021c, 2021d; FFF India, 2020b).

In an illustrative performance, an activist from FFF India takes on the roles of both an indigenous elder and a generic scientist. Donning glasses and neat attire, she raises her index finger, warning the audience about issues such as species extinction and global warming (FFF India, 2020b). Accompanying her climate message is the protest song *Burn, Baby, Burn*, which gained association with the Watts Riots of 1965—a series of violent confrontations between African Americans and the Los Angeles Police Department. Following a cut, the same activist switches to portraying governments, clad in a black suit, gesturing that they are not listening to scientists and indigenous elders. Instead, these governments persist in profiting from fossil fuels, factory farming, and land-use changes.

Memes are also used by climate activists as a tool of visual storytelling (FFF India, 2022; FFF International, 2021f, FFF Italy, 2020b, FFF Italy, 2020c, FFF Italy, 2022a). For example, a meme from FFF Italy encourages the audience to support their call for sustainable and free public transportation. The meme features an overtly muscular dog in a typical bodybuilder posture—standing tall and flexing its muscles (FFF Italy, 2022a). Attached to this dog is a German flag with the slogan 'Biglietti di treni e bus a 9€ al mese' (train and bus tickets for €9 per month). Adjacent to it is a lapdog, small and sitting, adorned with an Italian flag and the slogan 'Bonus trasporti 60€ una tantum' (one-off €60 transport bonus).² As a particular form of self-expression, memes function through humorous interventions and show a personalised way of addressing the topic of climate change. This use of humour and relatable imagery also shows the attempt to make complex issues accessible and engaging.

The incorporation of performances and memes into FFF's climate communication highlights a nuanced understanding of digital media's appeal to youth audiences. Dancing, lip-syncing and memes are the visual codes the activists are utilising in their climate storytelling to appeal to the younger consumers of social media. As mentioned above, previous studies suggest that personalised visual strategies can help to make messages more credible and relatable to younger audiences (Couldry and Hepp, 2017; Parmelee et al., 2022). In light of this, I suggest that the use of such strategies in FFF's Instagram content help it resonate more strongly with its youthful audience. So while the visual strategies of personalisation better echo the everyday experience of youth, they can also help to render the individual a part of a larger community—one that works together on an issue of common concern, namely the fight against climate change (see also Sobre-Denton, 2016). In this way, personalisation on social media facilitates the sense of community-building in youth climate activism (Bennett and Segerberg, 2012; Gerbaudo, 2012; Milan, 2015). As Stefania Milan puts it, this particular visibility of protest creates "personalised yet universal narratives, connecting individual stories into a broader context that gives them meaning" (2015: p. 894).

Furthermore, by establishing localised and cross-generational social media channels like 'ParentsForFuture' or 'TeachersForFuture,' FFF adeptly utilises personalisation to address diverse audience segments, from national to community-specific levels. This focus on local environmental challenges can enhance

audience's feelings of self-efficacy, contrasting with the often overwhelming scope of global climate issues; issues which often impact communities differently. FFF activists can motivate individual action or broader participation in the movement by making climate action seem more impactful in individuals' daily lives. Personalisation, hence, can work in mobilising collective action against climate change (see also San Cornelio et al., 2024).

Visualising contentious politics. Personalisation and the emphasis on the self-efficacy of climate activism forms a core component of FFF's visual climate storytelling. This involves the portrayal of both individual and collective action, manifesting in diverse forms such as single photographs, collages and short videos showcasing individuals, groups and large crowds participating in the run-up to or during global climate protests (see, for instance, FFF Berlin, 2021, 2022d; FFF France, 2021, 2022a; FFF International, 2021g, FFF Italy, 2022b). The visual content often features protestors holding banners, posters and signs laden with demands, as well as humorous, ironic phrases and political messages—prominently displayed during events like the global climate strike on 25 March 2022 (FFF Berlin, 2022e; FFF Germany, 2022e).

The movement underscores self-efficacy not only through the act of protest but also through the communal and social aspects of creating protest signage. Activists are shown painting protest signs highlighting the joint experience of doing something together against climate change (FFF France, 2022b; FFF Germany, 2021). The depiction of such acts of protest serves a dual purpose: it visually communicates the means through which individuals can engage in climate action and, importantly, illustrates the impact individuals can have when coming together for a common cause.

Research has shown that the Covid-19 pandemic challenged the movement's traditional modes of climate storytelling (Haßler et al., 2021; Hunger and Hutter, 2021; Rauchfleisch et al., 2021; Sorce and Dumitrica, 2021). Essentially relying on the organisation of mass protests in public spaces, the restrictions banning public gatherings as well as the imperative of social distancing dealt a significant blow to the storytelling abilities of the climate activists. This arguably has made the visualisation of agency through digital platforms even more crucial for the movement and its members.

Echoing De Meyer et al. (2021) on the importance of incorporating agency within climate communication narratives, it is crucial for FFF activism to show examples of climate action to audiences in order to enhance the sense of efficacy. Visualising agency through images of action shows a global audience, that individual contributions are impactful in addressing the climate crisis. This form of visual storytelling aligns to the observation made by scholars that FFF has altered mainstream climate change discourse by instilling the general idea that 'every individual carries responsibility and can provoke change in his/her everyday acts' (Drieschova, 2021: p. 5). Thus, the activists' use of personalisation and the emphasis on self-efficacy not only enhance the resonance of their messaging with a younger demographic but also serve to integrate individual experiences with the broader collective effort against climate change. The visual strategies employed by FFF activists help bridge the everyday experience of youth and their participation in a global movement, something which reinforces the message that climate action is both a personal responsibility and a collective endeavour.

It is also important to mention that images of action are a crucial mobilisation tool for social movements (Casas and Williams, 2019; Doerr, 2017; Doerr et al., 2013; Geise et al.,

2021). Images can evoke emotional responses, convey the urgency of issues and inspire individual participation through the depiction of collective action. Visualising contentious politics, that showcase the impact of collective efforts, serves as proof that action is taking place and that change can be achieved. This can help counter feelings of apathy or helplessness and motivate people to join the fight against climate change.

Conclusion

I have examined how FFF activists visually narrate climate action on Instagram. Situating this paper in visual climate change communication and studies on FFF, I argued that the movement's visual climate storytelling is still an under-addressed topic so far. I discussed examples from major branches of FFF and contributed to existing research our discussion of FFF activists' personalised climate storytelling on Instagram. As social media allows actors to directly engage with both local and global audiences, it has altered the ways in which climate protests are visually conveyed to the wider public. Personalising climate change is one particular means of visual climate storytelling. I emphasised three themes that illustrate the personalisation of climate storytelling by FFF activists: localising the effects of global climate change, using performances to convey climate messages and visualising contentious politics.

These personal(ised) stories are political in that they help convey a (visual) narrative of "everyone can make a difference" alongside the movement's overall demand of fundamental, systemic change. By highlighting personal experiences, these narratives can humanise the climate crisis, making it, for instance, more immediate and urgent. Such stories can render abstract, global issues into tangible, relatable experiences. However, visual posts on Instagram do not provide an objective look into the life of an activist, even if images and videos are made to appear that way; instead, they are curated windows, sometimes carefully crafted, offering a subjective account (Einwohner and Rochford, 2019).

The implications of this research underscore the importance of recognising climate activists as significant actors in the visual communication of climate change. The success of the movement as a global storyteller of the climate crisis makes it, and certainly other climate movements, worthy to add further research to existing studies lying at the intersection of cultural representations and narratives of climate change, environmental communication and social movement studies. Outstanding questions include ones about FFF's use of further narrative strategies and elements in its climate storytelling.

Examples here might be visual analogies linking other crises such as the Covid-19 pandemic, Russia's invasion of Ukraine or the Israel-Hamas war to issues of climate change and action (e.g. linking climate change with other global crises can serve as a potent narrative strategy. Visual analogies can draw parallels between immediate, widely understood emergencies and the more abstract, long-term threat of climate change); the simplification of climate science-related jargon (e.g. FFF activists can help to make climate science more accessible and understandable to a broader audience so that their messages resonate with individuals regardless of their scientific literacy. This personalisation strategy can help in forging a stronger connection between audiences and climate narration, encouraging engagement and action); or, the gendered dimensions of FFF's climate narratives, namely the apparent focus on young female activists (e.g. highlighting female voices, especially young activists, is another way to personalise climate storytelling as this focus not only showcases the inclusive, diverse nature of climate activism but also amplifies the message that climate change affects everyone, with youth and women playing crucial roles in the fight against it).

Another desideratum for further research concerns FFF's reliance on the visibility of large-scale protests, which arguably helps uphold its status of practising grassroots democracy. This in turn endows its political claims with legitimacy. Or, the trans-medial nature of FFF's climate narratives, as certain statements and (visual) stories about climate action are posted across social media platforms. Especially exploring the impact of social media on producing alternative climate visuals, highlighting protest and political action instead of generic images of melting glaciers and polar bears on ice, thus appear to be promising for future scholarship.

Data availability

The links in the data availability statement are the same as the links in the References list.

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Notes

- 1 As of November 2022, the national FFF chapters in Spain and the United Kingdom do not have Instagram accounts, while FFF South Africa has only 600 followers on its one.
- 2 The bonus trasporti is a government initiative in Italy that provides financial assistance to individuals to help them cover the cost of public transportation.

References

- Anderson A (2009) Media, politics and climate change: towards a new research agenda. *Social Compass* 3(2). <https://doi.org/10.1111/j.1751-9020.2008.00188.x>
- Belotti F, Donato S, Bussoletti A, Comunello F (2022) Youth activism for climate on and beyond social media: insights from FridaysForFuture-Rome. *Int J Press/Polit* 27(3):718–737. <https://doi.org/10.1177/19401612211072776>
- Bennett L, Segerberg A (2012) The logic of connective action. *Inf Commun Soc* 15(5):739–768. <https://doi.org/10.1080/1369118X.2012.670661>
- Bennett WL, Segerberg A (2011) Digital media and the personalization of collective action: socialtechnology and the organization of protests against the global economic crisis. *Inf Commun Soc* 14(6):770–799
- Bergmann Z, Ossewaarde R (2020) Youth climate activists meet environmental governance: ageist depictions of the FFF movement and Greta Thunberg in German newspaper coverage. *J Multicult Discourse* 15(3):267–290. <https://doi.org/10.1080/17447143.2020.1745211>
- Berker L, Pollex J (2022) Explaining differences in party reactions to the Fridays for Future-movement—a qualitative comparative analysis (QCA) of parties in three European countries. *Environ Polit*. <https://doi.org/10.1080/09644016.2022.2127536>
- Bevan L, Colley T, Workman M (2020) Climate change strategic narratives in the United Kingdom: emergency, extinction, effectiveness. *Energy Res Soc Sci* 69. <https://doi.org/10.1016/j.erss.2020.101580>
- Bloomfield EF, Manktelow C (2021) Climate communication and storytelling. *Clim Change* 167(3–4). <https://doi.org/10.1007/s10584-021-03199-6>
- Born D (2019) Bearing witness? Polar Bears as icons for climate change communication in National Geographic. *Environ Commun* 13(5):649–663. <https://doi.org/10.1080/17524032.2018.1435557>
- Boyle M, McLeod D, Armstrong C (2012) Adherence to the protest paradigm: the influence of protest goals and tactics on news coverage in US and international newspapers. *Int J Press/Polit* 17(2). <https://doi.org/10.1177/1940161211433837>
- Braun V, Clarke V (2006) Using thematic analysis in psychology. *Qual Res Psychol* 3(2):77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Casas A, Williams NW (2019) Images that matter: online protests and the mobilizing role of pictures. *Polit Res Q* 72(2):360–375. <https://doi.org/10.1177/1065912918786805>
- Charmaz K (2014) *Constructing grounded theory*. Sage Publications, London
- Chen K, Molder A, Duan Z, Boulianne S, Eckart C, Mallari P, Yang D (2022) How climate movement actors and news media frame climate change and strike: evidence from analysing Twitter and news media discourse from 2018 to 2021. *Int J Press/Polit*. <https://doi.org/10.1177/19401612221106405>
- COP26 Coalition (2021) *Coalition Statement #2: We Are Not All In The Same Boat*. Available at: <https://cop26coalition.org/resource/statement-2/> [Accessed 14 Apr 2022]
- Corrigan-Brown C, Wikes R (2012) Picturing protest: the visual framing of collective action by first nations in Canada. *Am Behav Scientist* 56(2):223–243. <https://doi.org/10.1177/0002764211419357>
- Couldry N, Hepp A (2017) *The mediated construction of reality*. Polity, Cambridge
- Culloty E, Murphy P, Brereton P, Suiter J, Smeaton A, Zhang D (2019) Researching visual representations of climate change. *Environ Commun* 13(2):179–191. <https://doi.org/10.1080/17524032.2018.1533877>
- De Meyer K, Coren E, McCaffrey M, Slean C (2020) Transforming the stories we tell about climate change: from “Issue” to “Action”. *Environ Res Lett* 16(1):1–13. <https://doi.org/10.1088/1748-9326/abcd5a>
- Di Cicco D (2010) The public nuisance paradigm: changes in mass media coverage of political protest since the 1960s. *J Mass Commun Q* 87(1):135–153. <https://doi.org/10.1177/107769901008700108>
- DiFrancesco D, Young N (2011) Seeing climate change: the visual construction of global warming in Canadian national print media. *Cult Geogr* 18(4). <https://doi.org/10.1177/1474474010382072>
- Dixon S (2023) *Distribution of Instagram users worldwide as of January 2023, by age group*. Statista.com. Available at: <https://www.statista.com/statistics/325587/instagram-global-age-group/> [Accessed: 20 Jun 2023]
- Doerr N (2017) How right-wing versus cosmopolitan political actors mobilize and translate images of immigrants in transnational contexts. *Vis Commun* 16(3):315–336. <https://doi.org/10.1177/1470357217702850>
- Doerr N, Mattoni A, Teune S (2015) ‘Visuals in Social Movements’. In: Porta D, Diani M (eds). *The Oxford handbook of social movements*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199678402.013.48>
- Doerr N, Mattoni A, Teune S (ed.) (2013) *Advances in the visual analysis of social movements (research in social movements, conflicts and change, Vol. 35)*. Emerald Group Publishing Limited, Leeds
- Drieschova A (2021) The social media revolution and shifts in the climate change discourse. *Glob Coop Res Pap* 29:1–35. <https://doi.org/10.14282/2198-0411-GCRP-29>
- Einwohner RL, Rochford E (2019) After the March: using Instagram to perform and sustain the Women’s March. *Social Forum* 34(51):1090–1111. <https://doi.org/10.1111/socf.12542>
- Fridays for Future [@fridaysforfuture] (2021a) Global climate strike #Uproot-TheSystem. Global climate strike live from Bogota, Colombia. 24 September. [Instagram video]. Available at: https://www.instagram.com/tv/CUOHnxdpqm8/?utm_source=ig_web_copy_link [Accessed 25 Mar 2022]
- Fridays for Future [@fridaysforfuture] (2021b) Global strike in Sweden! Have a look at one of the global strikes in Sweden organised by @fridaysforfuture-gavle!. 24 September. [Instagram video]. Available at: https://www.instagram.com/tv/CUNlnDqrVHY/?utm_source=ig_web_copy_link [Accessed 25 Mar 2022]
- Fridays for Future [@fridaysforfuture] (2021c) Global Climate Strike #Uproot-TheSystem: Global Climate Strike live from the Philippines with @yaca-philippines. 24 September. [Instagram video]. Available at: https://www.instagram.com/tv/CUME3xXD-3T/?utm_source=ig_web_copy_link [Accessed 25 Mar 2022]
- Fridays for Future [@fridaysforfuture] (2021d) Climate injustice includes food injustice. Small-scale peasant communities and local farmers are among the most affected groups of people impacted by the effects of the climate emergency. 8 September. [Instagram reel]. Available at: https://www.instagram.com/reel/CTkQ6dYDf6u/?utm_source=ig_web_copy_link [Accessed 25 Mar 2022]
- Fridays for Future [@fridaysforfuture] (2021e) We can’t just watch our global leaders not acting to stop the climate crisis, we need to unite!. 23 September. [Instagram reel]. Available at: https://www.instagram.com/reel/CULnVxjshAV/?utm_source=ig_web_copy_link [Accessed 25 Mar 2022]
- Fridays for Future [@fridaysforfuture] (2021f) We are getting ready to #Uproot-TheSystem but we also need some laughs! Look at our meme collection to get to know our narrative in a different way!. 11 September. [Instagram photo]. Available at: https://www.instagram.com/p/CTsOArp3tZ/?utm_source=ig_web_copy_link [Accessed 25 Mar 2022]
- Fridays for Future [@fridaysforfuture] (2021g) Global Climate Strike. 24 September. [Instagram Story]. Available at: <https://www.instagram.com/stories/highlights/17902325681283505/> [Accessed 22 Apr 2022]
- Fridays for Future Berlin [@fridaysforfuture.berlin] (2021) AlleFürsKlima Denn 1,5* sind nicht verhandelbar!. 1 November. [Instagram reel]. Available at: <https://www.instagram.com/p/CVvTjy343K/> [Accessed 12 Apr 2022]
- Fridays for Future Berlin [@fridaysforfuture.berlin] (2022a) Wir sind laut für UNSERE Zukunft. Wir sind laut gegen diese Politik!. 18 March. [Instagram reel]. Available at: <https://www.instagram.com/p/CbP-54xsp71/> [Accessed 14 Apr 2022]
- Fridays for Future Berlin [@fridaysforfuture.berlin] (2022b) “Wie wurdest du reagieren? #peoplenotprofitMarkier dein Demo Date”. 20 February. [Instagram reel]. Available at: <https://www.instagram.com/p/CaM2-CjDzwq/> [Accessed 14 Apr 2022]

- Fridays for Future Berlin [@fridaysforfuture.berlin] (2022c) Solange die Politik kein 1,5° konformen Klimaschutz leistet werden wir laut sein! Kommt am 25.03 mit und auf die Straße und zeig deine Wut. 23 March. [Instagram reel]. Available at: <https://www.instagram.com/p/CbcnuvbOFjp/> [Accessed 14 Apr 2022]
- Fridays for Future Berlin [@fridaysforfuture.berlin] (2022d) Letzten Freitag sind in berlin 22.000 Menschen für Klimagerechtigkeit und Frieden auf die Straßen gegangen. 28 March. [Instagram reel]. Available at: <https://www.instagram.com/p/Cbp0aTOMEJ/> [Accessed 12 Apr 2022]
- Fridays for Future Berlin [@fridaysforfuture.berlin] (2022e) Es regiert nur Olaf Scholz, weil der echte Olaf schmolz. 30 March. [Instagram photo]. Available at: https://www.instagram.com/p/CbtsL_uQR3/ [Accessed 12 Apr 2022]
- Fridays for Future Brazil [@fridaysforfuturebrasil] (2021a) Esses últimos dias na COP foram dias de luta e resistência. 6 November. [Instagram photo]. Available at: <https://www.instagram.com/p/CV9BqOksYQ/> [Accessed 16 Apr 2022]
- Fridays for Future Brazil [@fridaysforfuturebrasil] (2021b) “Nessa última sexta-feira (22), nossa greve global, ativistas da @ecopeloclima se juntaram em 3 pontos do estado do Rio Grande do Sul: Viamão, Imbé e Pelotas Tendo conversas com a sociedade e muita troca de conhecimento”. 25 October. [Instagram photo]. Available at: <https://www.instagram.com/p/CVdHoLULuHx/> [Accessed 16 Apr 2022]
- Fridays for Future Brazil [@fridaysforfuturebrasil] (2021c) Nossa #GreveporNoronha foi incrível, mas não acabou ainda! Se quiser aprender mais, tem vários posts incríveis no nosso Instagram e muito mais vindo por aí!. 19 June. [Instagram reel]. Available at: <https://www.instagram.com/reel/CQTfdeJHDYy/> [Accessed 16 Apr 2022]
- Fridays for Future Brazil [@fridaysforfuturebrasil] (2021d) Leilões fósseis não são bons para ninguém, eles destroem o planeta e principalmente nosso país!. 14 September. [Instagram reel]. Available at: https://www.instagram.com/reel/CTz8R-BJY_f/ [Accessed 16 Apr 2022]
- Fridays for Future France [@youthforclimatefr] (2021) Les 19 et 20 mars, nous nous sommes mobilisé·e·s dans toute la France pour la justice écologique et sociale!. 27 April. [Instagram photo]. Available at: <https://www.instagram.com/p/COLUtiOjCIR/> [Accessed 16 Apr 2022]
- Fridays for Future France [@youthforclimatefr] (2022a) J-5 avant les marches pour le climat partout en France. 20 March. [Instagram reel]. Available at: <https://www.instagram.com/p/CbVYz8ujiYf/> [Accessed 16 Apr 2022]
- Fridays for Future France [@youthforclimatefr] (2022b) J-14 avant la prochaine mobilisation Mondiale. 11 March. [Instagram reel]. Available at: <https://www.instagram.com/p/Ca-JoWrjOPT/> [Accessed 15 Apr 2022]
- Fridays for Future Germany [@fridaysforfuture.de] (2021) Was wird am Freitag auf deinem Demoschild stehen?!. 21 September. [Instagram reel]. Available at: <https://www.instagram.com/reel/CUFehaeIOXU/> [Accessed 12 Apr 2022]
- Fridays for Future Germany [@fridaysforfuture.de] (2022a) Markiere unter diesem Beitrag JETZT drei Leute, die am 25.03. mit dir streiken gehen sollen!. 18 March. [Instagram reel]. Available at: <https://www.instagram.com/reel/CbP2hBzgsMM/> [Accessed 14 Apr 2022]
- Fridays for Future Germany [@fridaysforfuture.de] (2022b) Auch heute wurde wieder spontan dafür demonstriert, dass #LützerathBleibt!. 29 March. [Instagram photo]. Available at: <https://www.instagram.com/p/CbsvzqrrU2z/> [Accessed 14 Apr 2022]
- Fridays for Future Germany [@fridaysforfuture.de] (2022c) Ihr wollt den Klimastreik in eurer Stadt noch weiter unterstützen, aber wisst nicht wie?!. 22 March. [Instagram reel]. Available at: <https://www.instagram.com/reel/Cba1JEPl3o/> [Accessed 16 Apr 2022]
- Fridays for Future Germany [@fridaysforfuture.de] (2022d) POV: Du gehst mit uns auf ein Date. 23 February. [Instagram reel]. Available at: <https://www.instagram.com/reel/CaVjwdJNEEm/> [Accessed 16 Apr 2022]
- Fridays for Future Germany [@fridaysforfuture.de] (2022e) Was wird am 25.03. auf eurem Demoschild stehen?!. 22 February. [Instagram photo]. Available at: https://www.instagram.com/p/CaSBtq6r_AU/ [Accessed 12 Apr 2022]
- Fridays for Future India [@fridaysforfuture.india] (2020a) HUNGER GAMES: MOCKINGP JAY PART1. 11 August. [Instagram reel]. Available at: <https://www.instagram.com/reel/CDwe-crHEaj/> [Accessed: 16 Apr 2022]
- Fridays for Future India [@fridaysforfuture.india] (2020b) cant hear you. 14 August. [Instagram reel]. Available at: <https://www.instagram.com/reel/CD2rcx7HIE8/> [Accessed 16 Apr 2022]
- Fridays for Future India [@fridaysforfuture.india] (2021a) This is not our trash, but this is our environment. 11 March. [Instagram photo]. Available at: <https://www.instagram.com/p/CMSYi9xHIEs/> [Accessed 16 Apr 2022]
- Fridays for Future India [@fridaysforfuture.india] (2021b) Every winter large number of tourists visit the waterfalls of Ranchi leaving behind a trail of plastic, thermocal and glass waste. 3 February. [Instagram photo]. Available at: <https://www.instagram.com/p/CK1nzSsnfnL/> [Accessed 16 Apr 2022]
- Fridays for Future India [@fridaysforfuture.india] (2022) I know this isn't going to end well—rue bennet, euphoria, S1 e7. 15 February. [Instagram photo]. Available at: https://www.instagram.com/p/CZ_Blx7Lb1Y/ [Accessed 16 Apr 2022]
- Fridays for Future Italy [@fridaysforfutureitalia] (2020a) CAPODANNO COL BOTTO. December 31. [Instagram reel]. Available at: <https://www.instagram.com/reel/CJdmavBCXZG/> [Accessed 11 Oct 2022]
- Fridays for Future Italy [@fridaysforfutureitalia] (2020b) Ci serve una PAC #bellanova #withdrawthecap #fridaysforfuture. November 15. [Instagram reel]. Available at: <https://www.instagram.com/reel/CHnD82ACVCa/> [Accessed 11 Oct 2022]
- Fridays for Future Italy [@fridaysforfutureitalia] (2020c) eh niente, noi che ancora ci speriamo... #MeMercoledì #WithdrawTheCAP #RitirateLaPAC #CrisiClimatica. November 18. [Instagram reel]. Available at: <https://www.instagram.com/reel/CHvRZ-hk7Zv/> [Accessed 11 Oct 2022]
- Fridays for Future Italy [@fridaysforfutureitalia] (2022a) Anche tu preoccupato di non riuscire a partecipare allo sciopero globale per il clima del 23 settembre perché i trasporti pubblici non funzionano?!. September 7. [Instagram photo]. Available at: <https://www.instagram.com/p/CiNNeootmnQ/> [Accessed 11 Oct 2022]
- Fridays for Future Italy [@fridaysforfutureitalia] (2022b) Ultima carrellata di foto dallo #sciopero del 23 Settembre. October 2. [Instagram photo]. Available at: <https://www.instagram.com/p/CjORB0INDv7/> [Accessed 11 Oct 2022]
- Geise S, Panke D, Heck A (2021) Still images—moving people? How media images of protest issues and movements influence participatory intentions. *Int J Press/Polit* 26(1):92–118. <https://doi.org/10.1177/1940161220968534>
- Gerbaudo P (2012) Tweets and the streets: social media and contemporary activism. Pluto Press, London
- Harcourt R, de Bruin W, Dessai S, Taylor A (2021) Envisioning climate change adaptation futures using storytelling workshops. *Sustainability* 13(12):6630. <https://doi.org/10.3390/su13126630>
- Haßler J, Wurst A, Jungblut M, Schlosser K (2021) Influence of the Pandemic Lockdown on Fridays for Future's Hashtag Activism. *New Media Soc* 1–23. <https://doi.org/10.1177/14614448211026575>
- Hayes S, O'Neill S (2021) The Greta effect: visualising climate protest in uk media and the Getty images collection. *Glob Environ Change* 71. <https://doi.org/10.1016/j.gloenvcha.2021.102392>
- Hopke JE, Hestres LE (2018) Visualizing the Paris climate talks on Twitter: media and climate stakeholder visual social media during COP21. *Social Media + Soci* 4(3). <https://doi.org/10.1177/2056305118782687>
- Hunger S, Hutter S (2021) Fridays for future in der Corona-Krise: Welche Mobilisierungskraft Haben Online-Proteste? *Forschungsjournal Soz Bewegungen*, [online] 34(2):218–234. <https://www.degruyter.com/document/doi/10.1515/fjsb-2021-0019/html>
- Kalt T (2021) Jobs vs. Climate justice? Contentious narratives of labor and climate movements in the coal transition in Germany. *Environ Polit* 30(7). <https://doi.org/10.1080/09644016.2021.1892979>
- Kidd D, McIntosh K (2016) Social media and social movements. *Sociology Compass*. 10(9). <https://doi.org/10.1111/soc4.12399>
- Kilgo D, Harlow S (2019) Protests, media coverage, and a hierarchy of social struggle. *Int J Press/Polit* 24(4). <https://doi.org/10.1177/1940161219853517>
- Leaver T, Highfield T, Abidin C (2020) Instagram: visual social media cultures. Polity Press
- Lee F (2014) Triggering the protest paradigm: Examining factors affecting news coverage of protests. *Int J Commun* 8, 2725–2746. Available at: <https://ijoc.org/index.php/ijoc/article/view/2873>
- Lütkes L, Tuitjer L, Dirksmeier P (2023) Sailing to save the planet? Media-produced narratives of Greta Thunberg's trip to the UN Climate Summit in German print newspapers. *Humanit Soc Sci Commun* 10:242. <https://doi.org/10.1057/s41599-023-01743-6>
- Maguire M, Delahunt B (2017) Doing a thematic analysis: a practical, step-by-step guide for learning and teaching scholars. *All Irel J Teach Learn High Educ* 9(3):1–14. <https://ojs.aishere.org/index.php/aishere-j/article/view/335>
- Mattoni A, Teune S (2014) Visions of protest. a media-historic perspective on images in social movements. *Social Compass* 8(6). <https://doi.org/10.1111/soc4.12173>
- McCurdy P (2012) Social movements, protest and mainstream media. *Social Compass* 6(3). <https://doi.org/10.1111/j.1751-9020.2011.00448.x>
- McGarry A et al. (eds) (2019) *The Aesthetics of global protest: visual culture and communication*. Amsterdam University Press, Amsterdam
- Milan S (2015) From social movements to cloud protesting: the evolution of collective identity. *Inf, Commun Soc* 18(8):887–900. <https://doi.org/10.1080/1369118X.2015.1043135>
- Molder AL, Lakind A, Clemmons ZE, Chen K (2022) Framing the global youth climate movement: a qualitative content analysis of Greta Thunberg's moral, hopeful, and motivational framing on Instagram. *Int J Press/Polit* 27(3):668–695. <https://doi.org/10.1177/19401612211055691>
- Neumayer C, Rossi L (2018) Images of protest in social media: struggle over visibility and visual narratives. *N Media Soc* 20(11):4293–4310

- O'Neill S, Smith N (2014) Climate change and visual imagery. *WIREs Clim Change* 5(1):73–87. <https://doi.org/10.1002/wcc.249>
- O'Neill S (2013) Image matters: climate change imagery in US, UK and Australian newspapers. *Geoforum* 49:10–19. <https://doi.org/10.1016/j.geoforum.2013.04.030>
- Painter J, Kristiansen S, Schäfer M (2018) How 'Digital-born' media cover climate change in comparison to legacy media: a case study of the COP 21 summit in Paris. *Glob Environ Change* 48:1–10. <https://doi.org/10.1016/j.gloenvcha.2017.11.003>
- Parmelee J, Perkins S, Beasley B (2022) Personalization of politicians on Instagram: what Generation Z wants to see in political posts. *Inf Commun Soc*. <https://doi.org/10.1080/1369118X.2022.2027500>
- Raftopoulos M, Specht D (2022) Frack-off: social media fights against fracking in Argentina. *Environ Commun*. <https://doi.org/10.1080/17524032.2021.2018002>
- Rauchfleisch A, Siegen D, Vogler D (2021) How COVID-19 displaced climate change: mediated climate change activism and issue attention in the Swiss media and online sphere. *Environ Commun*. <https://doi.org/10.1080/17524032.2021.1990978>
- San Cornelio G, Martorell S, Ardevol E (2024) "My goal is to make sustainability mainstream": emerging visual narratives on the environmental crisis on Instagram. *Front Commun* 8:1265466. <https://doi.org/10.3389/fcomm.2023.1265466>
- Schneider B, Nocke T (2014) Image politics of climate change: visualizations, imaginations, documentations. Transcript Verlag, Bielefeld
- Schäfer MS, Schlichting I (2014) Media representations of climate change: a meta-analysis of the research field. *Environ Commun* 8(2):142–160. <https://doi.org/10.1080/17524032.2014.914050>
- Sisco MR, Pianta S, Weber EU, Bosetti V et al. (2021) Global climate marches sharply raise attention to climate change: analysis of climate search behavior in 46 countries. *J Environ Psychol* 75:101596
- Sobré-Denton M (2016) Virtual intercultural bridgework: social media, virtual cosmopolitanism, and activist community-building. *N Media Soc* 18(8):1715–1731. <https://doi.org/10.1177/1461444814567988>
- Sorce G, Dumitrica, D (2021) #Fighteverycrisis: pandemic shifts in Fridays for future's protest communication frames. *Environ Commun*. <https://doi.org/10.1080/17524032.2021.1948435>
- Stammen L, Meissner M (2022) Social movements' transformative climate change communication: extinction rebellion's activism. *Soc Mov Stud*. <https://doi.org/10.1080/14742837.2022.2122949>
- Svensson A, Wahlström M (2021) Climate change or what? Prognostic framing by Fridays for future protesters. *Soc Mov Stud* 22(1):1–22
- Taylor M, Watts J, Bartlett J (2019) Climate crisis: 6 million people join latest wave of climate protests. *The Guardian*. Available at: <https://www.theguardian.com/environment/2019/sep/27/climate-crisis-6-million-people-join-latest-wave-of-worldwide-protests>
- Tiidenberg, K (2018) 'Ethics in Digital Research'. In: *The SAGE Handbook of Qualitative Data Collection*. SAGE Publications Ltd
- Trombeta G, Cox SM (2022) The textual-visual thematic analysis: a framework to analyze the conjunction and interaction of visual and textual data. *Qual Rep* 27(6):1557–1574. <https://doi.org/10.46743/2160-3715/2022.5456>
- Uldam J, Askanius T (2013) Online civic cultures? Debating climate change activism on YouTube. *Int J Commun* 7:1185–1204. <http://ijoc.org/index.php/ijoc/article/view/1755>
- Wahlström M, Sommer M, Kocyba P, De Vydt M, De Moor J, Davies S, Wouters R, Wennerhag M, Van Stekelenburg J, Buzogány A, Ūba K (2019) Protest for a future: composition, mobilization, and motives of the participants in Fridays For Future climate protests on 15 March, 2019 in 13 European cities. https://protestinstitut.eu/wp-content/uploads/2019/07/20190709_Protest-for-a-future_GCS-Descriptive-Report.pdf
- Wallis H, Loy LS (2021) What drives pro-environmental activism of young people? A survey study on the Fridays for future movement. *J Environ Psychol* 74:101581
- von Zabern L, Tulloch C (2021) Rebel with a cause: the framing of climate change and intergenerational justice in the German press treatment of the Fridays for

future protests. *Media Cult Soc* 43(1):23–47. <https://doi.org/10.1177/0163443720960923>

- Zamponi L, Baukloh AC, Bertuzzi N, Chironi D, della Porta D, Portos M (2022) (Water) bottles and (street) barricades: the politicisation of lifestyle centred action in youth climate strike participation. *J Youth Stud* 25(6):1–22. <https://doi.org/10.1080/13676261.2022.2060730>

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Author contributions

DS was primarily responsible for the conceptualisation, methodology, data collection, analysis and interpretation of the research. DS managed the project, wrote the initial draft as well as the revisions of the manuscript and supervised all stages of the research process. LK contributed to the initial draft, assisted with the literature review and data collection and managed the bibliographic work. LK has withdrawn from the manuscript due to other commitments.

Competing interests

The author declares no competing interests

Ethical approval

Ethical approval was not required as the study did not involve human participants.

Informed consent

Informed consent was not required as the study did not involve interviews.

Additional information

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