

2025, 12(1): 211-227

DOI: <https://doi.org/10.17572/mj2025.1.211-227>

Articles (Theme)

ENGAGING CLIMATE CRISIS THROUGH AN IMMERSIVE DOCUMENTARY

Mine Gencil Bek¹

Abstract

Our research approaches climate communication with one of the newer multi-modal forms and with an under-examined study on students. An interactive documentary titled *This Is Climate Change* (2018) was analyzed as an example of “eco-culture” and read by the university students at Siegen University in Germany from the perspective of “eco-affects” (Adrian and Ivakhiv, 2024). The students engaged with this chosen documentary series mainly based on whether interactivity leads to a more engaged or well-informed audience (Brannon et al. 2022, 335). The research also functions as a “climate literacy/climate change literacy” (Azevedo and Marques 2017, 4). Thus, the article hopes to contribute to engaged communication scholarship on environmental justice (Chad, 2019) and transformative communication scholarship (Brüggemann et. al. 2023).

Keywords: climate crisis, immersive documentary, climate literacy, climate change literacy, climate communication

¹ Mine Gencil Bek, Prof. Dr., Siegen University, ORCID ID: 0000-0001-5699-7637, minegencelbek@gmail.com

ETKİLEŞİMLİ BELGESEL İLE İKLİM KRİZİYLE İLİŞKİLENMEK

Öz

Araştırmamız, iklim iletişimine dair çok çalışılmamış bir konu olan yeni çoklu modlu formlar ve öğrenciler üzerinedir. *This Is Climate Change* (2018) başlıklı interaktif belgesel, bir “eko-kültür” örneği olarak analiz edilmiş ve Almanya'daki Siegen Üniversitesi'ndeki üniversite öğrencileri tarafından ağırlıkla “eko-duygulanımlar” (Adrian ve Ivakhiv, 2024) perspektifinden okunmuştur. Araştırma, etkileşimsel türlerin izleyicinin konuyla daha çok ilişki kurmasına ve daha çok bilgilenmesine yol açıp açmadığını sorgulamaktadır (Brannon vd. 2022, 335). Çalışma aynı zamanda bir “iklim okuryazarlığı/iklim değişikliği okuryazarlığı” (Azevedo ve Marques 2017, 4) işlevi görmeyi amaçlamaktadır. Böylece makale, çevresel adalet (Chad, 2019) ve dönüştürücü iletişimi (Brüggemann et. al. 2023) şiar edinen iletişim çalışmalarına katkıda bulunmayı ummaktadır.

Anahtar Kelimeler: iklim krizi, interaktif belgesel, iklim okuryazarlığı, iklim değişikliği okuryazarlığı, iklim iletişimi

Introduction

This paper explores the evolving landscape of climate change communication, focusing on the intersection of media, journalism, and emerging technologies in shaping public understanding and engagement with this critical issue. While research on climate change communication has primarily focused on traditional media texts, there is a growing recognition of the importance of studying newer media forms and audience engagement. These forms include interactive and immersive journalism, which offers new possibilities for engaging audiences with climate issues. This study examines the reception of immersive climate change documentaries among university students, exploring how this emerging media form impacts understanding, emotional engagement, and potential action on climate issues. The research aims to contribute to our understanding of effective climate change communication strategies in the digital age by investigating these aspects: Watching the documentary as a practice including the medium, platform, and order; the style and the form of the documentary including the 360-degree aspect; informative and emotional aspects and impact, whether it leads to participation and action.

First, the article will summarize the literature on climate communication. Furthermore, it will explore the emergence of new media forms, such as interactive journalism and immersive documentaries, and their potential to innovate climate change storytelling. Then, the research design and findings will be introduced and discussed. The article will end with a conclusion and discussion of future tendencies and recommendations.

Climate Change From Representation To Engagement

Research on the climate crisis can be found in different disciplines and interdisciplinary work. When we focus on the connection between the climate crisis and the media and communication, we come across also a growing body of literature from the emerging field of environmental communication - with the field starting to be institutionalized, as can be seen with the establishment of environmental communication-related divisions at professional associations and the founding of the journal *Environmental Communication* in 2007, the focus of research has shifted from risk-related research to specifically to climate change (Evans Comfort and Eun Park, 2018). The issue, which was previously represented in a limited way in both journalism and research, grew with research on media *representation* of climate change in the mid-2000s (Schäfer and Schlichting, 2014).

When we look at the studies on how the media frames climate change, it is possible to state that we see mostly the dominance of negative framing of this phenomenon in terms of problems, dangers, harms, conflict, fear, risks, disaster, catastrophe, and doomsday scenarios (Graf, 2016; Guenther et. al 2023; Ganapathy, 2022). The structure of the journalism profession affects the coverage as well. As Eide and Kunelius (2020) state, routine journalism is event-focused and on the latest events. Slow processes generated by climate change, such as deteriorating food security, mass hunger, or loss of species, always risk being backgrounded in the news media. Routine journalism is less equipped to provide context and longer narratives, providing a more in-depth understanding of the events and complexities and tensions between the actors (p.167).

Guenther et al. (2022) show that the news magazine cover stories on climate change from 1980 to 2019 in India, Germany, the United Kingdom, and the United States have three frames: Global Doom, Local Tragedies, and Sustainable Future. While the Global Doom frame was abstract, the Local Tragedies frame referred to actual current events with more concrete solutions. Accordingly, while the first two were dominant in the early years, the Sustainable Future frame differed from apocalyptic climate futures with the call for urgent solutions and allowed a more diverse and potentially empowering reporting since the 2000s. Sustainability was traced in another research by Wessler et al. (2016): According to content analysis of text and images in newspaper articles from Brazil, Germany, India, South Africa, and the United States covering

the United Nations (UN) Climate Change Conferences 2010–2013, these four overarching frames were identified: global warming victims, civil society demands, political negotiations, and sustainable energy frames. These emerging and increasing frames on sustainability seem to be related to initiatives beyond the nation-state, such as the Paris Agreement in 2015 and the United Nations Climate Change conferences. Even though there are signs of an emerging transnational professional practice (Kunelius et al. 2017; Nicoletta and Yükses, 2023), the focus of the coverage tends to be national. That is problematic since the issue is not national. The coverage of national focus on the declarations of the leaders in each country can hamper building a realistic and constructive understanding of the world's needs; solutions should be both transnational and global (Eide and Kunelius, 2020). Furthermore, as Anderson (2009) discusses, media reporting of climate change is heavily influenced by socio-political factors and has become increasingly affected by political and industry interests. We will discuss this issue in the conclusion, articulating more critical recommendations.

Research on the issue's coverage is wider than the text and increasingly includes visuals. Based on the images, Schäfer (2020) states that news media has two main types of imagery: The first is images of the consequences of climate change, such as floods, and their impact on biodiversity, flora, and fauna. The second consists of images of well-known individuals, mainly politicians and celebrities. Interestingly, the less frequent images are infographics, causes of climate change, untouched nature, and images of options for action.

The general trend of scientific research on the environment focuses on *media texts rather than the audience* (Evans Comfort and Eun Park, 2018; Guenther et al. 2023) is also found in film studies. Holmes (2020) discusses that even though the number of films addressing climate issues is increasing, there has not been a corresponding rise in relevant audience research. Therefore, we have a limited understanding of audiences' reception in this regard. The audience here should be more than just one element of the communication process: reading the text. As Sundar Harris (2019) reminds us, audiences are engaged in content creation despite the lack of interest in the research on that. This lack is interesting, especially when we remember that dialogue and collaboration between experts and communities were issues in earlier risk communication studies in the 1990s (Yusuf and St. John III, 2022). On the other hand, the lack of empirical research can be understandable since it is difficult to research these issues, as Weik von Mossner (2020) states: "No one can truly predict or measure what impact any climate change film, be it on fiction or nonfiction, has on the individual viewer" (p. 337).

Even though online content on climate change is on the rise (Schäfer, 2012), most studies are conducted on traditional or printed news media (Ganapathy 2022). One of the problems of omitting researching newer types of media, as Agin and Karlsson (2021) argue, is that we are missing out on how the younger

generations communicate. Climate change attitudes and beliefs among undergraduate groups of students, in particular, have been historically under-sampled or examined (Brereton, 2019). Below, the issue of immersive documentary with the potential of focusing on climate change innovatively will be addressed before our research on the signification practices of university students of an immersive documentary on climate change.

Immersive Documentaries And Engagement

Different traditions, forms, and content, such as journalism and documentary, converge, and new forms merge, as seen in interactive journalism. This emerging genre has been named differently as immersive or interactive journalism and documentary or as a new wave of literary journalism (Jacobson, 2016). The research literature approaches the issue from different aspects including content (Jones, 2017), journalists, journalism's future, and journalism education (Watson 2017; Aitamurto, 2019; Gencil Bek, 2022).

Research on audience engagement (Vázquez-Herrero and Van der Nat, 2023) shows that interactive and immersive forms of journalism can have positive effects, including empathy, despite some challenges and limitations, such as the requirement of time and certain technology investments. Audience engagement increases when individuals recognize their own lives or experiences in the story.

Following Dowling (2022), it is possible to ask whether these immersive forms provide new forms of citizen engagement through the aesthetic and political potential of advocacy journalism aimed at social and political change and whether they offer an empathic alternative to traditional news coverage. For Shin (2018), immersion is a multifaceted concept with contextual factors. The fluid empathic process can be affective, cognitive, and behavioural. Podara et al. (2021), who used web metrics data to examine audience behaviour, admitted that their research lacked knowledge about motivations and gratifications of audiences' usage. They discuss that engaging long-form stories can be challenging for younger generations, whose attention span gets even shorter. Another collective research previously led by the researcher Podara (et al. 2019) arrived at this conclusion at the end of a focus group research with university students majoring in journalism at Greek and Cypriot Universities: Young adults of the post-millennial generation preferred web-based, online news with the traditional form of reporting and simple structures rather than an interactive, mixture of video, audio, and text. This finding is indeed striking, but maybe it is because the students were asked to complete the assignment during the course through their smartphones. It should be examined with a different medium to check. The way to learn about the news is to 'google' it as a result of what the authors Podara et al. (2019) describe as the distrust of the media. Therefore, young students spot

the news in their social media timelines and create their own bubble, where they feel safe. They declare researching the issue themselves rather than reading a full, investigative long-form article.

Brannon et al. (2022) search for the potential of emerging techniques to communicate climate change content effectively through the analysis of the three interactive documentaries, including one part (Melting Ice) of *This Is Climate Change* (2018), as we focus on in this article. They argue that the gamification of I-Doc work and the embedding of inoculation techniques offer engagement potential for audiences, warn about the threat of climate change, and develop a counterargument that exposes the disinformation and fake news on climate change suspicion. Their article is based on a content analysis methodology while this research concentrates on the readings of students after providing a descriptive account and the researcher's own reading of each four episodes.

Research

Our research analyzes “eco-media” and “eco-affect” (Ivakhiv and López 2024) through the practices of young people in immersive journalism or a documentary casework, *This is Climate Change*. It is a four-part series of short 360° immersive VR films. It was produced by Participant Media and Condition One, and featured on Within. They are titled *Fire* (California wildfires of 2017), *Famine* (Somalia), *Feast* (Amazonian rainforest in Brazil), and *Melting Ice* (icebergs in Greenland). It was chosen to show the impact of the climate crisis in different contexts, not limited to one country and not limited to the West. This new form of journalism does not automatically create empathy. Scholars have discussed the ability of the storytelling of immersive journalism to create a sense of emotional connections to people, events, and places (Gynnild et al. 2021). Jones (2021) values the role of place more than people in generating empathy so that the audience sees and understands a place and its environment.

The most-watched film is *Melting Ice*, while the least-watched on YouTube is *Famine*. Before showing them to the students and asking them questions, I watched and reflected on my own practices. The content is not loaded with a lot of information. However, the information on the 4-degree difference in temperature in the last decade was powerful. What was more interesting was experiencing the 360-degree angle. It really gives a feeling as if I was there, witnessing, seeing with my eyes, hearing the noises. For example, hearing how the ice is cracked and melted has an enormous effect. I felt like I was just next to that ice, passing by the water, looking from the position of the melting ice that stands and floods, even looking at the water inside. I watched the documentaries from my touchscreen laptop computer. Sometimes, I made a mistake while touching and trying to see 360 degrees and minimized the screen. That created anxiety for me, thinking of missing the words and content. This is the concern of my students, as will be discussed later.

This documentary can be connected to the second approach which was summarized above during the literature review: local tragedies. While it is more comprehensive than global doomsday, which is why I chose to include different countries and locations, we could hardly see the third frame, sustainability. In *Melting Ice*, there is a call to act urgently: unless we act boldly now, the consequences will be bad. For example, the film presents that we are already producing climate refugees and that the problem is expected to get a lot worse in the future. In the other episodes, these types of references are not present.

Watching them on YouTube was challenging. The setting on my account that the content would flow or recommendations could be made was on since I use the platform to listen to music. As soon as one episode finished, I thought another episode would start. However, YouTube suggested something else: lively music with no connection to the issue. The effect was disturbing and interrupting. However, it can be an effect of escaping to another topic, decreasing the issue's intensity, and leading over to whatever comes next for some other users.

The documentary series also references the news media in the California wildfires episode. We heard the related TV news at the back. It increases the factuality of the tragedy, how 44 people died. We do not see a traumatizing view, such as burned or dead bodies. However, we see some scenery on a plane and around a burned forest with the aid workers and witnesses. It feels as if one was surrounded by fire, with a 360-degree view. In this episode, there is a reference to scientists who fear that record-breaking temperatures and reduced nature will fuel more catastrophic fires across the West. Another person from the aid worker also mentions that in the future, there will be more catastrophic fires; however, without mentioning that we can change this.

Watching *Feast* which is about the clearing of a rainforest to make way for industrial cattle was one of the hardest, with views of dead animals. The sharpness between the beauty of the original Amazon forest with the sounds and the sceneries and sounds of trees being cut down was dramatically striking. I felt that the issue should have been approached from the perspective of animal rights as well. That absence was striking. Aesthetically, the cut road, which was a brown road among the green forest, was a powerful image.

For me, Watching *Famine* was emotionally the hardest (some of my students differed, as will be seen later) since the views were disturbing and the music was alarming. The film is set in Somalia, where there is drought and rising temperatures, and we are viewing the surroundings from inside a vehicle of Save the Children. People are queuing for water, children are sick and vulnerable, and 400.000 of them are malnourished, some of them in hospitals. Animals are in distress. We would hear local people through translation. The general theme is that no one can survive this. We see how people migrate and try to find a better place. A sentence from one woman is striking: "This life is not a life."

How do the students receive these documentaries? Their perspectives will be summarized and discussed in the remainder of the article. Previously, these questions were shared with them to guide them:

- *How did you watch this documentary? Via which medium? Which one of the four films in the series did you choose first, and in which order did you watch them? Why?*
- *Evaluate the style and the form of the documentary. What do you think of the 360-degree immersion aspect? Did you use it? How did you feel about it?*
- *Evaluate the documentary's content and compare it with the other climate change stories you know.*
- *What did you do as soon as you have finished watching the series? Does the documentary have any emotional impact on you regarding the consequences of the climate crisis?*
- *Did you learn something new? Are you planning to learn more on the subject, and how?*
- *Are you planning to discuss, share, or contribute more on the subject, and how?*

I asked the students in two classes I teach for the winter semester of 2024. One is a BA course, mainly from the media studies department, titled *Emerging Media and Digital Journalism*, where I discuss the convergence of long-form journalism and interactive documentaries with examples. The other seminar, *Environmental Communication*, is an MA course chosen by sociology and cultural sociology students. Most of the students mentioned remained anonymous when I distributed an informed consent form to get their approval for using their names and statements in different ways. Then, I used all with the number I gave according to the order of their submission. In the first group, eleven students were present overall, and in the other one, four students watched the documentaries in class and replied to my questions. BA students did not find the format or topic interesting or innovative.

The order of watching was for almost all, either the list I gave or the platform algorithm. While in general, the order of watching was seen as usual, with nothing to discuss by the BA students, the effect of the order was expressed with this critical reflection by the master student from Environmental Communication: "....watching "Famine" after "Feast" highlighted a strange and tragic absurdity in the allocation of resources. But this also might have come through in a different order." (Participant 15). The student elaborated:

“Melting Ice: Having worked on communicating the issue of Arctic ice melting, I know how difficult it is to bring this geographically distant issue to people in Europe. The narrative of the polar bear or other affected animals has worked effectively in past discussions. Here, it takes the viewer on a scientific observation journey. The jump cut/switch of scenery between the Arctic and Florida offered an interesting twist, especially for U.S. viewers, who are a significant target audience since the U.S. has one of the highest per capita CO2 emissions globally.

Fire: This episode was quite emotional, taking the viewer alongside firefighters fighting the flames. The immersive element made me feel like I was part of their struggle. While the theme of wildfires has been covered in many other stories, this documentary breaks the larger climate crisis down into something immediate and tangible for viewers, particularly in the West, where wildfires have become increasingly common. The inclusion of future predictions from fire department officials added weight to the storyline.

Feast: The contrast between idyllic nature and the destruction of ecosystems was a powerful way to underscore the tragedy of climate change. The opening statement about the importance of ecosystems in climate regulation made the subsequent scenes of destruction more impactful. The final scene, where a cow is led to slaughter, served as an emotional climax, connecting the crisis to beef consumption in the U.S. While the consumer critique isn’t new, the immersive participation of viewers may lead to adjusted consumer decisions.

Famine: Coming after “Feast” in my selection, this documentary highlighted the unreal realities of life in the Global South. The dry, hostile climate was effectively communicated through the immersive 360-degree format. With the climate crisis worsening, it’s hard to imagine these conditions becoming even more severe. The combination of local voices and immersive visuals created an emotional human connection that often feels absent in discussions about the Global South – particularly for viewers in the Global North, which bear most of the responsibility for the climate crisis fuelling emissions. While I’ve seen similar stories in conventional documentaries, the 360-degree format offered a fresh perspective, making the crisis feel actually closer and more personal”.

This student’s reading was a successful combination of form and content and a critical reading from a broader perspective. When we look at the perspectives of undergraduate students, the majority replied to the question on the engagement with the *formal* aspects with “yes, but to some degree” with some reservations. Some mentioned that the 360-degree immersion “helps one to feel oneself in the place and help understand the seriousness” (Participant 2). One mentioned that the need to look around to see what was happening made them feel uncomfortable (Participant 11). At the same time, the same student added, “The need to look around to see what’s happening makes one feel uncomfortable. Combined with the serious and pressing music one immediately knows what’s happening is wrong, even if they wouldn’t

have a drop of knowledge about the topic. But it also helps to show the full extent of the destruction of landscapes and brings more reality to the medium. It feels honest and devastating to look at". Another Participant (4) stated: "I think it's pretty interesting to use these kind of cameras... but after a while, it was more annoying than it was good in my opinion. You kinda had to move all the time or you might miss the few text boxes...". Both the positive and negative aspects were listed together by others as well: "Dry facts and numbers can't reach feeling in my opinion, but pictures do...I liked it because even when nothing is happening, I had the feeling I was in this situation but at the end, I had every time the feeling that I have overlooked something" (Participant 3).

Most undergraduate students approached the *content* negatively, stating that the issue was covered with the general knowledge as has been reported in the everyday news; videos do not exceed common knowledge regarding the climate crisis and do not focus on the exact causes. It is striking that their readings were more negative compared to the Master's students. This might be related to their departments and backgrounds in journalism and media studies. The Master's students came from different disciplines, and their chosen course was related to environmental communication. Nevertheless, it was also possible to see that even those who stated at the beginning that the video was not very informative to them, and later they did not inform anything, mentioned they did not know about palm oil or the effect of cattle farming (Participant 10).

The *emotional* impact of the documentaries was announced as yes and no, almost the same proportion. Those affected referred to animals being killed (Participant 1). We discussed this issue further in the following week: The affected Participants emphasized that the human part of the tragedies is more known. The complexity of the issue was addressed in between the lines in some cases, as can be seen in this example: "I did not specifically learn something new through the series, but I have to say I've never seen a video of starving children because so far, I chose to avoid it, since it's too tough to look at. This is also why I'm actively choosing not to learn more about the topic; I can't handle it emotionally. I used to be an activist when I first went vegan in 2014, and I have done my fair share of discussions. I'm tired of fighting, and it sent me into a depression because I lost faith in humanity. It's much easier to just look at yourself and minimize your impact on the climate and the environment in general, and I will gladly continue doing so." Thus, the readings of the students were never straightforward and could not be reduced easily if they were not engaged or not affected. However, except for one master's student mentioning demanding change who is already involved in the issue with his professional life and activism (Participant 15), the majority mentioned that they are not planning to learn more on the subject or discuss or *participate* in different ways. Among those who mentioned they would, the effect of each person was underlined rather than from the broader perspective as Participant 1 stated: "It is important to remember that every single one can influence the world, whether in a good or in a bad way." Another one (Participant 2) wrote, "I plan

to pay even more attention to my consumption in daily life.” One of the master students (Participant 14) also mentioned self-reflectively: “The documentaries had an emotional impact on me. I realized how much people suffer just because I drive a car regularly. I also became more aware of the great privilege I have in being able to live in Germany”. Even though her words are from an individual standpoint, empathy and sensitivity give hope. That is an issue which will be traced in conclusion.

Conclusion and Discussion

One of our foci in this article was the *positive potential* of climate documentaries in terms of developing emotional connection and empathy using immersive forms. Weik von Mossner (2020) states: “Such films do not only offer narratives instead of abstract scientific data but also engage their audiences emotionally in such narratives about current risks and potential future catastrophes” (p. 336). That was partly true in our research: In general, our research shows that the 360-degree film allowed to feel the situation, such as the melting ice, as if we were there, and we were part of them. It helped to build an emotional human connection. However, that technique, as has been confirmed by the reading of the students and me, interrupted to concentrate on the content. Similarly, Sarah Jones (2017), with a focus group of eighteen journalism students from the UK, states that the fear of missing something in some action and not seeing something crucial to the story was a repeated concern. Watching the documentary from a platform algorithm was not problematized by the undergraduate students. The content of the documentary compared to the long form of journalism also was seen not deep by the undergraduate journalism students.

The documentary episodes focused on local tragedies rather than connecting the issues with capitalism and the issues of colonialism and injustices. The absence of animal rights which was mentioned above also worth repeating. Our agency as humans, “we can change this” was not the dominant frame. Thus, the depoliticization of climate change may contribute to creating symbolic conditions that demobilize, discourage, and delimit citizen political engagement (Carvalho et al. 2017).

Our research is also in line with the results of research conducted by Vázquez-Herrero and Van der Nat (2023), who state that feeling involved with a journalistic story is not a constant feeling for users; instead, engagement is fleeting and primarily dependent on the extent to which users can recognize themselves and their life in a story.

It is hard to assume that this four-episode documentary could increase the sensitivity of the students and lead to their action to make changes. In fact, many of the students declared that they did not want to learn the subject and participate in any collective, political action. Instead, they genuinely shared that they value

changing and controlling their individual consumption and everyday life routine. For the students, individual actions seem more important and feasible. Still, their empathy and sensitivity count and can be a vital potential to be activated for further levels of transformation.

The innovative approaches in documentary and journalism might offer opportunities for fostering empathy, increasing awareness, and potentially motivating action on climate issues. However, they also present new challenges and questions regarding audience reception, technological accessibility, and the balance between emotional impact and factual accuracy. As we navigate this complex terrain, it becomes clear that effective climate change communication requires a multifaceted approach that considers not only the content of the message but also the medium through which it is delivered and the diverse contexts in which it is received. We should not forget that the same technologies that offer promises can have perils and can be used in a dystopic way, destructively at the service of hate, anger, and manipulation (Johnson 2021). We can witness the ethical violation of authenticity and transparency as the core values of journalism with the creation and distribution of deepfakes (Uskali et al. 2021) as well as threats to gender equality and democracy (Gencel Bek, 2025).

Besides raising ethical concerns and the issues of the safety and well-being of audiences, Sánchez Laws (2020) asks what the role of immersive journalists is in establishing and promoting a different set of rules of engagement with virtuality, implying that it should be different from those promoted by market-driven actors and the industry. These experiential forms were supported by global platforms and were mostly produced in alliance with large foundations and large media organizations in the global north.

The focus on individuality, lack of social and political frame, and reference to neo-liberal capitalism were mentioned above and in the literature review. These issues should be integrated with our critical thinking and awareness, as Bartosch (2020) suggests:

“What is needed, therefore, is a form of political and aesthetic education that considers the pedagogic and democratic need for dissent just as much as the collaborative impetus of concerted global action” (p. 351).

Developing creative and new forms is essential to engage young audiences and citizens. Our research examined this and used the classroom as a transformative ecological and critical media literacy space. We need more radical and critical approaches to be developed among media professionals and academics in alliance with the right defenders and struggling communities. Before concluding, I underline the importance of listening to critical approaches and suggestions from journalists, media professionals, and academics to increase our hope and resilience.

We do not only need engaged students. Engaged and transformative communication scholarship on environmental justice, transformative communication scholarship (Chad, 2019; Carvalho et al., 2023) is necessary to fulfil this task. The description and the call of *the Journal of Environmental Media* to construct alternative understandings of – and practical recommendations for – more effective communication practices, equal resource access, and potential spaces for digital resistance and community-building by Shriver-Race and Vaughan (2020) may inhabit a promising future. Suggestions for climate journalism include more responsible and transformative journalism that promotes agency, telling multiple stories, inspiring community-level resistance and transformations, and amplifying counternarratives for people who are becoming active citizens (Painter, 2019; Hackett et al., 2017; Brereton, 2019). It is hard to differentiate some suggestions for both media professionals and academics since they are valid for each group. These are the importance of marginalized communities and periphery (Sundar Harris, 2019), speaking for the people most affected by environmental issues (Evans Comfort and Park, 2018). There are actual practices in Turkey such as *Bozcaada International Festival of Ecological Documentary* (BIFED, 2024), which can be a model for the outcome and processes. The festival hosted many independent productions on post-colonialism. At the same time, it seems that the event was organized ecologically sensitively and included the island people. It was organized for the 11th time this year, as always, on a Turkish island called Bozcaada, differently in 2024, including another nearby Turkish island and a Greek island. That is important in terms of developing cross-cultural communication and peace. Further research is needed in order to evaluate the impact of the activities.

Even though climate crisis was our focus here, finally, we should remember the other issues affecting the public and the environment, as Evans Comfort and Park (2018) urge, including the persistence of air and water pollution, biodiversity loss, open space preservation, resource depletion, overpopulation, ocean acidification, and natural resources management.

References

- Agin, S. and Karlsson, M. (2021). "Mapping the Field of Climate Change Communication 1993–2018: Geographically Biased, Theoretically Narrow, and Methodologically Limited". *Environmental Communication*. 15:4, 431-446, DOI:10.1080/17524032.2021.1902363
- Aitamurto, T. (2019). "Normative Paradoxes in 360- degree Journalism: Contested Accuracy and Objectivity." *New Media & Society* 21(1), January: 3– 19. doi:10.1177/ 1461444818785153
- Anderson, A. (2009). "Media, Politics and Climate Change: Towards a New Research Agenda". *Sociology Compass* 3/2 (2009): 166–182, 10.1111/j.1751-9020.2008.00188.x

- Azevedo, J., and Marques. M. (2017). "Climate Literacy: A Systematic Review and Model Integration." *International Journal of Global Warming* 12 (3/4).
- Bartosch, R. (2020). "Reading and Teaching Fictions of Climate". Holmes, David C. and Lucy M. Richardson. (ed.) *Research Handbook on Communicating Climate Change*. Cheltenham, Northampton: Edward Elgar pub. 349–352.
- BIFED (2024). *Bozcaada International Festival of Ecological Documentary*.
<https://www.bifed.org/en/home/> accessed 14th October 2024.
- Brannon, L. et. al (2022) "The Potential of Interactivity and Gamification Within Immersive Journalism & Interactive Documentary (I-Docs) to Explore Climate Change Literacy and Inoculate Against Misinformation", *Journalism Practice*, 16:2-3, 334-364, DOI: 10.1080/17512786.2021.1991439
- Brereton, P. (2019). *Environmental Literacy and New Digital Audiences*. Routledge.
- Brüggemann, M. et. al (2023). "Still Watching from the Sidelines? The Case for Transformative Environmental Communication Scholarship". *International Journal of Communication* 17. 5039–5052/1932–8036/2023FEA0002
- Carvalho, A. et. al (2017). "Communication Practices and Political Engagement with Climate Change: A Research Agenda". *Environmental Communication*, 11:1, 122-135, DOI: 10.1080/17524032.2016.1241815
- Chad, R. (2019). "Engaged Communication Scholarship for Environmental Justice: A Research Agenda". *Environmental Communication*, 13:8, 1087-1107. DOI: 10.1080/17524032.2019.1591478
- Danfung, D. and Strauss E. (2018). *This Is Climate Change: Melting Ice*.
<https://www.youtube.com/watch?v=MwSLTGjPqG8&t=499s> Accessed 15 July, 2024.
- Danfung, D. and Strauss E. (2018). *This Is Climate Change: Fire*.
<https://www.youtube.com/watch?v=E9b6lUo7aEg> Accessed 15 July, 2024.
- Danfung, D. and Strauss E. (2018). *This Is Climate Change: Feast*
<https://www.youtube.com/watch?v=3d0lSEzsuaM> Accessed 15 July, 2024.
- Danfung, D. and Strauss E. (2018). *This Is Climate Change: Famine*
<https://www.youtube.com/watch?v=rJbPkFt-YIA> Accessed 15 July, 2024.
- Dowling D. (2021). "Interactive documentary and the reinvention of digital journalism, 2015–2020". *Convergence: The International Journal of Research into New Media Technologies*. Vol. 28(3) 905–924. DOI: 10.1177/13548565211059426
- Eide, E. and Kunelius, R. (2020). "Climate Reporting: Challenges and Opportunities". Holmes, David C. and Lucy M. Richardson. (ed.) 2020. *Research Handbook on Communicating Climate Change*. Cheltenham, Northampton: Edward Elgar pub. 164-182.

- Evans Comfort, S. and Young Eun, P. (2018). "On the Field of Environmental Communication: A Systematic Review of the Peer-Reviewed Literature". *Environmental Communication*, 12:7, 862-875, DOI: 10.1080/17524032.2018.1514315
- Ganapathy. D. (2022). *Media and Climate Change. Making Sense of Press Narratives*. Routledge.
- Gencil Bek, M. (2025). "Deepfake: Hak ve adalet perspektifinden yapay zekâ destekli dezenformasyon videoları". *NewsLabTurkey*.
<https://www.newslabturkey.org/2025/04/18/deepfake-cheapfake-cozumler-sorunlar/>
- Gencil Bek, M. (2022). "Changing News and Journalism in the Digital Era". *Transformation of Popular*.
<https://sfb1472.uni-siegen.de/publikationen/changing-news-and-journalism-in-the-digital-era>.
- Graf, H. (2016). "Introduction". *The Environment in the Age of the Internet*, ed. Heike Graf, Open Book Publishers. <https://books.openedition.org/obp/3149>.
- Guenther, L. et. al (2023). "Framing as a Bridging Concept for Climate Change Communication: A Systematic Review Based on 25 Years of Literature". *Communication Research* 1–25.
- Guenther, L. et. al (2022). "From Global Doom to Sustainable Solutions: International News Magazines' Multimodal Framing of our Future with Climate Change", *Journalism Studies*, 23:1, 131-148, DOI: 10.1080/1461670X.2021.2007162
- Gynnild, A. et. al (2021). "Introduction. What is Immersive Journalism?". Uskali, Turo, Astrid Gynnild, Sarah Jones and Esa Sirkkunen. (ed.) *Immersive Journalism and Storytelling. Ethics, Production and Design*. New York: Routledge.
- Hackett, R. et. al (2017). *Journalism and Climate Crisis: Public Engagement, Media Alternatives*. New York, Routledge.
- Holmes, D. C. (2020). "Introduction to the Research Handbook on Communicating Climate Change". Holmes, David C. and Lucy M. Richardson. (ed.). *Research Handbook on Communicating Climate Change*. Cheltenham, Northampton: Edward Elgar pub. Pp. 1-20.
- Holmes, D. C. and Richardson. L. M. (ed.). (2020). *Research Handbook on Communicating Climate Change*. Cheltenham, Northampton: Edward Elgar pub.
- Ivakhiv, A. and López, A. (2024). "When Do Media Become Ecomedia? ". 19-34 *The Routledge Handbook of Ecomedia Studies*. (ed.). Antonio López, Adrian Ivakhiv, Stephen Rust, Miriam Tola, Alenda Y. Chang, and Kiu-wai Chu. Routledge.
- Jacobson, S. et. al (2016). "The digital animation of literary journalism". *Journalism*. Vol. 17(4) 527–546. DOI: 10.1177/1464884914568079

- Johnson, D. G. (2021). "Promises and Perils in Immersive Journalism". Uskali, Turo, Astrid Gynnild, Sarah Jones and Esa Sirkkunen. (ed.) *Immersive Journalism and Storytelling. Ethics, Production and Design*. New York: Routledge.
- Jones, S. (2021). "It's not just about empathy. Going beyond the empathy machine in immersive journalism". Uskali, Turo, Astrid Gynnild, Sarah Jones and Esa Sirkkunen. (ed.) *Immersive Journalism and Storytelling. Ethics, Production and Design*. New York: Routledge.
- Jones S. (2017). Disrupting the narrative: immersive journalism in virtual reality, *Journal of Media Practice*, 18:2-3, 171-185, DOI: 10.1080/14682753.2017.1374677
- Kunelius, R. (et. al). (2017). "Key Journalists and the IPCC AR5: Toward Reflexive Professionalism?" R. Kunelius et al. (eds.), *Media and Global Climate Knowledge*, DOI 10.1057/978-1-137-52321-1_12
- Metag, J. (2016). "Content Analysis in Climate Change Communication". Oxford Research Encyclopedia of Climate Science.
- Podara, A., D. et. al (2021). "Digital Storytelling in Cultural Heritage: Audience Engagement in the Interactive Documentary New Life." *Sustainability* 13 (13): 1193.
- Podara, A., G. et. al (2019). "News Usage Patterns of Young Adults in the Era of Interactive Journalism." *Strategy and Development Review*. 9: 7–29.
- Sánchez Laws and Law, A. (2017). "Can Immersive Journalism Enhance Empathy? " *Digital Journalism*, 8(2), 213–228. <https://doi.org/10.1080/21670811.2017.1389286>
- Schäfer M. S. (2020). "News Media Images of Climate Change: Reviewing the Research". Holmes, David C. and Lucy M. Richardson. (ed.) *Research Handbook on Communicating Climate Change*. Cheltenham, Northampton: Edward Elgar pub. Pp. 143-152.
- Schäfer, M. S. (2012). "Online communication about climate change and climate politics. A literature review". *WIREs Climate Change*, 3, 527–543. doi:10.1002/wcc.191
- Schäfer, M. S. and Schlichting, I. (2014). "Media representations of climate change: A metaanalysis of the research field. *Environmental Communication*", 8(2), 142–160. <https://doi.org/10.1080/17524032.2014.914050>
- Shin, D. and Biocca, F. (2018). " Exploring immersive experience in journalism". *new media & society*. Vol. 20(8) 2800–2823
- Shriver-Rice, M. and Vaughan, H. (2020). "What is environmental media studies?". *Jem Journal of Environmental Media* 1 (1) pp. 3–13
- Sundar Harris, U. (2019). *Participatory Media in Environmental Communication Engaging Communities in the Periphery*. Routledge.

- Uricchio W. C. et al. (2016). *Mapping the Intersection of Two Cultures: Interactive Documentary and Digital Journalism*. Cambridge, MA: MIT Open Documentary Lab.
- Uskali, T. et. al (2021). "Forecasting Future Trajectories for Immersive Journalism". Uskali, Turo, Astrid Gynnild, Sarah Jones and Esa Sirkkunen. (ed.) *Immersive Journalism and Storytelling. Ethics, Production and Design*. New York: Routledge.
- Uskali, T. and Ikonen, P. (2021). "The Impact of Emotions in Immersive Journalism". Uskali, Turo, Astrid Gynnild, Sarah Jones and Esa Sirkkunen. (ed.) *Immersive Journalism and Storytelling. Ethics, Production and Design*. New York: Routledge.
- Vázquez-Herrero, J. and van der Nat, R. (2023). "Blurring and Redefining Boundaries of Journalism in the Production and Reception of Interactive Digital Storytelling". M.-C. Negreira-Rey et al. (eds.), *Blurring Boundaries of Journalism in Digital Media, Studies in Big Data* 140, https://doi.org/10.1007/978-3-031-43926-1_11
- Watson, Z. (2017). "VR for News: The New Reality?" *Digital News Project*. Oxford, UK: Reuters Institute for the Study of Journalism, Oxford University. <https://reutersinstitute.politics.ox.ac.uk/our-research/vr-news-new-reality> .
- Weik von Mossner, A. (2020). "Popularizing Climate Change: Cli-fi Film and Narrative Impact". Holmes, David C. and Lucy M. Richardson. (ed.) 2020. *Research Handbook on Communicating Climate Change*. Cheltenham, Northampton: Edward Elgar pub. 330-339.
- Wessler, H., et. al (2016). "Global multimodal news frames on climate change: A comparison of five democracies around the world". *The International Journal of Press/Politics*, 21(4), 423–445. <https://doi.org/10.1177/1940161216661848>
- Yusuf, J.E. and St. John III., B. (2022). *Communicating Climate Change*. Routledge.