SIX YEARS OF EUROPEAN VISUAL CLIMATE ACTIVISM: A LONGITUDINAL ANALYSIS OF FRIDAYS FOR FUTURE AND EXTINCTION REBELLION'S ONLINE VISUAL COMMUNICATION

Costanza Azzuppardi
Scuola Normale Superiore

Nicole Doerr
University of Siegen

Maria Langa
University of Gothenburg

Matteo Magnani
Uppsala University

Dániel Oross
Elte Centre for Social Sciences

Luca Rossi
IT University of Copenhagen

Alexandra Segerberg
Uppsala University

Katrin Uba
Uppsala University

Luigi Arminio
IT University of Copenhagen

This paper addresses how global climate movements use images in their social media communication from a comparative perspective: How have FFF and XR in Italy, Germany, Sweden and Hungary evolved their use of visual communication on

Instagram between 2018 and 2024?
Visual affective narratives have long been central to how movements represent themselves, their action, and their goals to gain visibility and mobilize support (Doerr, Mattoni & Teune 2013). Yet while recent climate movements span the globe, their visual strategies, internal differences and culturally specific translations into local context are only now being studied (e.g., Shim 2024).

We argue that three lines of analysis are important for a comprehensive understanding of the relation between image content and protest movements: a) complementary movements, b) complementary countries and c) longitudinal observation. A) Different parts of the climate movement such as Fridays for Future (FFF) and Extinction Rebellion (XR) join global actions but pursue distinct strategies of respectively strikes and disruption that can be expected to feature visually to distinct effect (Joost et al., 2021). B) Meanwhile, such visual strategies will likely play out differently across various societal contexts. This is not least the case in Europe, which presents both a transnational and locally rooted context that is also understudied with respect to environmental movements in Central and Eastern Europe (but see Císar 2022). C) Moreover, since the inception of FFF and XR in 2018, stressors such as the global pandemic, a wide-spread economic recession, and war on the European continent have impacted various societies differently, potentially challenging local movements in their struggle for visibility and recognition

Methodology

To investigate our research question, we combined computational and qualitative methods. First, we collected all the visual content shared by the official Instagram accounts of FFF and XR in the selected countries. This resulted in 27741 visual elements (videos + images). Of those we clustered the image content (N=26705) using the semantic clustering methods described in (Authors 2024). The method leverages the visual capabilities of contemporary LLMs to produce textual descriptions of the visual content. These descriptions not only contain information about what is depicted in the image but also additional information such as the text written on signs, the description of the logos etc. (see and example in Figure 1). The textual descriptions were then grouped per movement, country and two-year periods (e.g. XR/ITA/2018- 2020) and converted into text-embeddings that are numeric vectors representing the texts that are able to preserve the semantic information (Wang et al. 2016). The text embeddings have been clustered using a state-of-the-art clustering algorithm (HDBSCAN) (McInnes, Healy, & Astels, 2017) to produce clusters of semantically similar images. We then selected a sample of images (16) (see an example in Figure 2) per each cluster for qualitative analysis. The qualitative analysis proceeded by an initial focus on descriptive characteristics of the sample images, annotating keywords and themes, capturing repetition and variation of elements, actors and styles of representation. This thematic analysis was accompanied by writing analysis memos that registered impressions on relevant patterns across countries and movement cases and changes or overall consistencies over time. These notes were used to guide a second evaluation and summary of results.

Preliminary Results

Analyzing such a large and complex corpus yields both overall trends as well as localized specificities. Overall, we found significant changes in visual communication over time. While protest images and pictures of activists holding signs remained a stable trope, we observe the emergence of new visual formats, such as activists addressing the viewer by looking or speaking directly at the camera. Similarly, images increasingly directly address actors such as oil companies and politicians as responsible for climate change, and more images focus on forest fires and climate consequences such as floods and drought. We also identified a shift in the images of protest, from more positive images towards more dramatic ones that include new civil disobedience

Figure 1: OpenAI's visual model describe this image as ""The image conveys a powerful message of protest and criticism against the fast fashion industry, particularly targeting the company H&M. The group of people holding a banner emblazoned with the words "H&M

tactics. Another trend is the incorporation of wider political topics such as the Ukraine war, LGBTQ rights and racism, and, most recently, Palestine.

We also find a clear difference between FFF and XR in the overall evolution of their visual communication. Whereas XR from the beginning included civil disobedience with images of activists being carried and arrested by police, FFF's communication shifted towards these types of images over time. In both groups, the later clusters show more violent and chaotic images of police repression.
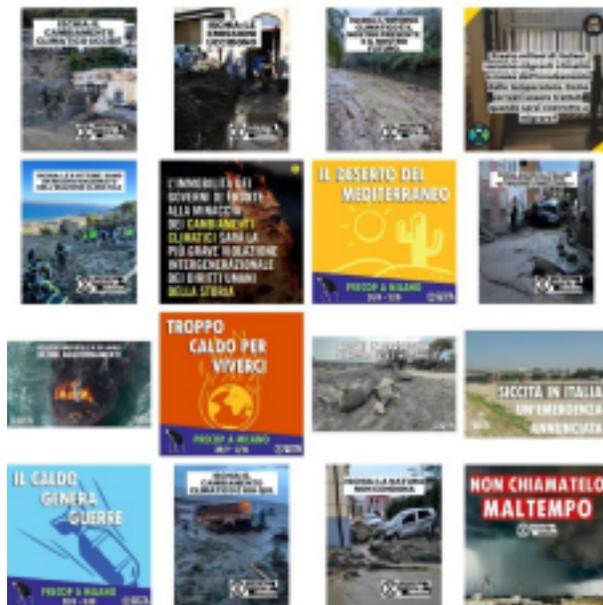
Looking at country-level differences, it is clear that while all the countries witnessed these general trends, local contexts connected with them in different ways. In Italy, both movements emphasized the negative effects of climate change, and FFF explicitly targeted major energy corporations. Germany shows two main peculiarities: on the one hand, it includes focus on renewable energy technologies (especially FFF) and, on the other hand, XR strongly connects with social justice themes that go beyond environmental activism, such as gender violence, and a general criticism of capitalism. Swedish FFF shows an interesting mix of graphics and photographic content, with the former

being used to provide details about events and the latter reporting from the events. XR Sweden shows a different strategy in focusing on the dramatic effects of climate change and forced confrontation with police. Hungary does not show an evolution in tone in either case: FFF remains joyful over the years, while XR uses visual content to emphasize activist commitment rather than to show the environment or civil disobedience.

Conclusions

In this abstract we have presented some of the preliminary results of a large-scale comparative analysis of the visual communication adopted on Instagram by XR and FFF in 4 European countries in between 2018 and 2024. Adopting an innovative methodology that combines computational and qualitative methods we have identified some intriguing, albeit preliminary, results. We have shown how both FFF and XR have shifted their visual communication, both showing more confrontational actions as well as connecting their protest with other social issues. We have also shown how these movements, despite their international dimension, connect with local causes and issues.

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