ORIGINAL ARTICLE

DOI: 10.51480/1899-5101.17.3(37).631

Environmental Politics: Could Social Media in Greece Foster the Ground for an Alternative Environmental Agenda?

Ioanna Archontaki
0000-0001-6712-0531
National and Kapodistrian University of Athens, Athens, Greece

Achilleas Karadimitriou
0000-0003-3670-968X
National and Kapodistrian University of Athens, Athens, Greece

Iliana Giannouli
0009-0000-2634-351X
National and Kapodistrian University of Athens, Athens, Greece

Stylianos Papathanassopoulos
0000-0001-7946-6310
National and Kapodistrian University of Athens, Athens, Greece

Abstract: The sharing of news across various social media platforms has become an integral part of our daily information intake. But our understanding of the specific types of environmental news stories that gain widespread traction across diverse media platforms remains limited. In our study we examine the most popular posts appearing on Facebook and Twitter for a three-month period (September – November 2021). Our research revealed that social media users predominantly depend on traditional media outlets rather than seeking information from alternative news sources. The news shared on social media platforms primarily originates from political actors and institutions, either in the form of statements or press releases. This content tends to focus on the societal and economic implications of the crisis. Consequently, social media in Greece has not yet managed to establish an alternative narrative or agenda surrounding this issue.

Keywords: climate change, legacy media, social media, environmental issues, climate news

INTRODUCTION

Climate change or climate crisis is described as an "unobtrusive" topic (Schafer, 2015) based on its complexity bearing effects that become tangible in the long run. However, it still occupies a significant portion of media's coverage, even though its intensity varies across time and between countries (Schafer et al., 2013). For years traditional news media outlets have been the primary sources of information on environmental issues (Hase et al., 2021; Schäfer, 2015), while media portrayals of the environmental topics seem to affect the publics' perception and stance regarding the importance of ecological sustainability (Broadbent et al., 2016; Stecula & Merkley, 2019). As a result, these "media representations" have for a long time provided the primary axis, on which the public discourse on environmental issues has been founded.

However, due to the meteoric growth of social media and their appeal especially to younger generations, the control once enjoyed by legacy media over information distribution and narrative construction on public issues has now been significantly challenged (Wohn & Bowe, 2016). Scholars argue that social media, by enabling the participation of multiple and diverse actors in the shaping of public agenda, hold a democratizing potential in the contemporary digital era. In other words, in this new "hybrid media system", there are the premises for the emergence of a new discursive power from a wide spectrum of actors (Jungherr et al., 2019). In addition, current studies reveal that social media have the potential to foster civic action for environmental protection (Roshandel Arbatani et al., 2016). However, we still have limited knowledge on the type of environmental news stories that become "viral" across assorted media platforms. In other words, the question is whether or not there is a "news recipe" that makes particular stories successful in terms of social media diffusion and reach.

By employing a quantitative content analysis of the most popular posts on climate, both on Facebook and Twitter over a three – month period (September-November 2021), this study seeks to investigate whether there are specific traits or particularities that make certain environmental news stories popular on these platforms in Greece. By tracing and comparing the main news stories on climate-related issues posted by online users, groups and Greek legacy media on Facebook and Twitter, we try to identify the main themes and types of stories mostly shared on these platforms. Secondly, we explore the potential differences among the sources of news stories shared by non-media professionals (users' pages and groups), with the aim of ascertaining whether the news media platforms enhance the diversity of news information by expanding the range of topics as well as the pool of sources (beyond legacy media), resulting in an enriched and pluralistic public debate on climate-related issues.

Our findings seem to question the potential of social media to establish a new agenda within the public debate regarding climate change. Moreover, our findings revealed that Facebook alternative sources are promoting mainly infotainment-oriented content, whereas most posts on Twitter are coming mainly from legacy media or institutional actors. In other words, social media platforms, at least in Greece, tend to serve as a means of reinforcing institutional speech or as an interactive space of entertainment and distraction.

LITERATURE REVIEW

PERCEPTION OF CLIMATE CHANGE IN GREECE

Greece is in the northeast of the Mediterranean Sea, a region characterized as a "climate change hotspot" and has been experiencing numerous events connected to climate change during the last decades (prolonged heatwaves, wildfires, floods etc.). As a result, public awareness and anxiety over the climate crisis is increasing within the country. According to 2021 Eurobarometer survey's findings, 84% of Greeks identified climate crisis as a "very serious problem" compared to the 78% share of EU27. Moreover, 78% of the population believed that the government was not doing enough to "tackle climate change" (Eurobarometer, 2021).

Another topic closely related to climate change is the transition to green or renewable sources of energy. Greece has achieved most of its 2020 energy and climate targets (IEA, 2023). Nonetheless, the reduction in energy demand and GHG emissions was mainly caused by Greece's prolonged economic contraction (IEA, 2023). According to Halko and Gkampoura (2021), the main increase in energy poverty in Greece took place from 2009 to 2013. Although, there has been a decrease from 2014 onwards, it is noteworthy that even in 2021, 17.5% of the total population was unable to adequately heat their homes (EU avg = 8%).

Greek media have traditionally treated climate change with consensus on the anthropogenic causes of climate change and on the promotion of renewable energy sources as a means for tackling carbon emissions. Nevertheless, as Gkiouzepas and Botetzagias (2017) note when examining more specific and controversial climate change policy decisions, newspapers appeared to align themselves along partisan lines.

Greek media's environmental editors point to politicians and large corporations exerting pressure on the media, influencing them to exclude environmental topics that clash with their interests (Kostarella et al., 2013). The scarcity of environmental news can be attributed to two additional factors, as reported in the same study: the limited readership for such news and a lack of journalistic

expertise and experience in covering these matters. Tsekos and Matthopoulos (2008) underscore the insufficient collaboration between Greek journalists and scientists when reporting on environmental issues, further contribute to the problem.

The study on media coverage of the Mati wildfire in Greece in 2018, conducted by Karyotakis (2022), revealed that news outlets treated the wildfire as a political matter rather than an environmental one. Similarly, research by Hovardas (2014), on the coverage of the 2007 wildfires reveals, that the Greek press framed the disaster as „unnatural" and „unexpected," with newspapers showing clear partisan biases. Newspapers aligned with the governing party adopted the narrative of an „asymmetric threat" propagated by the government, presenting the wildfires as the outcome of a supposed conspiracy plan. This approach aimed to deflect blame for the government's failures in managing the situation.

Due to perceived political and corporate influence, the population in Greece has shown low trust in the media, with only 19% expressing trust in 2022, according to the Reuters Institute Report (Newman et al., 2023). The same study reveals that a significant portion of online users (61%) currently rely on social media as their primary source of news, with Facebook being the most popular platform, accounting for 46% of the respondents.

FRAMING CLIMATE CHANGE IN LEGACY NEWS MEDIA

Journalists are not experts on climate issues; thus, their perception of climate change is basically formed by the sources they rely on (Kleinberga, 2022). In her study of how climate change is covered by the media in Latvia, Kleinberga (2022) found that climate coverage is homogenous, relied upon prepackaged material and promotes institutional voices (politicians, government officials) as news sources. In their study, Badullovich et al. (2020) highlight that the most common frames, as appeared in their extended literature review, are of Scientific, Economic, and Environmental thematic orientation. Moreover, other frames, such us Public Health, Disaster and Morality and Ethics are starting to gain considerable attention by researchers in recent years. Recent analysis of media representations on climate change reveals a shift has taken place on the primacy focus of journalistic coverage (Schäfer, 2015). From representing climate as a pure scientific issue, the media are now emphasizing the societal aspects giving rise to new political and economic debates. These political and economic concerns have identified as a common theme of journalistic coverage on climate change, since they "are generally considered more newsworthy than the effects on the ecosystem" (Engesser & Brüggemann, 2015:14). In the same vein, in their analytic literature review on frame analysis of climate change, Schäfer and O'Neill (2017:22) argue that science-centric frames are losing ground to socio-political frames. On their part, Stecula and Merkley (2019) point out that certain frames with economic

connotations, like harms or uncertainties regarding climate mitigation policies have been on the decline in the mainstream media since they are considered to have an adverse outcome in peoples' propensity to support climate action. By contrast, positive framing, e.g., highlighting the economic benefits of climate action, is on the rise, as it is more successful in mobilizing people to engage in environmental activism. By and large, as Vikström et al. (2023:17) argue, the "economic framing of climate change seems to most adamantly cling to the status quo frames", since climate change in the media discourse has been "subordinate to economic policy" (Vikström et al. 2023:18).

Other studies identified a shift in industry actors' climate change rhetoric through the years in accordance with scientific or political developments (Schlichting, 2013). Last but not least, as a part of their study, Hase et al. (2021) analyzed the main themes of frames raised by the ten most cited studies in the field and conclude that the news coverage of climate consists of the following frames: climate science, environmental impacts and changes, climate politics, economic impacts, societal and cultural impacts. These are further merged into three dimensions; a) a scientific dimension which refers to scientific evidence or processes regarding climate change, b) an ecological dimension, which involves the effects of climate change on nature, like weather effects or disasters and a c), societal dimension, which puts people at the forefront and how they cope with or cause climate change.

Compared to other countries, studies on environmental issues framing in Greece, still lags and as a result we cannot fully understand how these processes work in a polarized media system.

THE ROLE OF SOCIAL MEDIA IN THE ONLINE ENVIRONMENTAL DEBATE

The influence of social media on democratic politics is a widely discussed topic incorporating antithetical claims. On the one hand, there is a simplistic approach perceiving social media platforms—through virtual communities—as an alternative public sphere permitting influential public discussions, which incorporate viewpoints frequently not displayed by the legacy media (Çela, 2015). This reflects a clearly optimistic perspective, describing social media as having revitalized the public sphere with "the networked population" having the potential to participate in public speech and be part of collective action (Shirky, 2011: 29).

This new description refers to a supposedly multifaceted sphere of social networks, which play a considerable role in realizing the public debate beyond national borders and thus contribute to a transnational public opinion. However, this benefit is believed to reflect an exaggerated representation of the internet's democratizing power (Iosifidis, 2011: 619). The reason lies in the social media platforms' constraints that in impeding civil political discourse are in effect making the revitalization of a public sphere infeasible (Kruse et al., 2018).

Among these constraints are inequality in information access, (not unlimited but characterized by an aversion to differing or competing viewpoints), as well as unfree or distorted behavior due to the existence of surveillance practices and filtering processes based on algorithms (Kruse et al., 2018: 64–65).

Another important issue regarding the role of social media in shaping the online debate on the environment has to do with the possibility of alternative framing of the current events, giving birth to new conceptions of the issues at stake. Relevant research has recently revealed that climate change is framed differently between mainstream news media organizations and climate movement actors based on X (formerly Twitter). Indeed, Chen et al., (2023: 385) argue that X frames the environmental crisis in a way that provides insights into the consequences of climate change and calls for action. In terms of climate movement coverage on X, policy changes and responsibility attributions are two frames that stand out, characterized by a much more frequent appearance on users' discussions within a platform bearing temporal patterns of discourse (Chen et al., 2023: 405–406).

Other environment-oriented frames, exhibited by social media platforms, relate to how global climate NGOs present their strategic messages on Facebook. It is concluded that overall, the NGOs resort to the diagnostic frame through messages that mainly reflect "problems" associated with climate change. The topic being discussed more frequently is climate actions, followed by climate impacts and efficacy (Vu et al., 2021: 104–105). The discussions' themes between NGOs coming from developed and developing countries have proved to differ with the former, showing a tendency to discuss actions to a greater extent. In this frame building process, the agendas between social media platforms and legacy news media are not necessarily contradictory. A study investigating how traditional news media and social media, (mainly X but as Twitter), influenced each other before and after President Trump's announcement of withdrawing the U.S.A from the Paris climate agreement, revealed – in some aspects of the climate issue – a significant correlation between the agendas of Twitter and newspapers (Su & Borah, 2019: 245).

As to the activist aspect of the environmental issue, social media use has also been found to be positively related to the environmental engagement. This is exemplified by young people employing social media in global social movements as a tool for activism with the aim of drawing attention and attracting people to join the movement through calls to action. Among the fundamental strategies adopted by activists, as revealed in Greta Thunberg's case of Instagram posts, is framing climate change as an issue of ethical and moral dilemma, while at the same time resorting to hopeful emotional appeals and to motivational framing to recruit supporters (Molder et al., 2022).

METHOD

As part of the EUMEPLAT project, this research follows a methodology framework designed for analyzing platform journalism in ten EU countries (Cardoso et al., 2021). The present study focused on conducting a quantitative analysis of popular Greek posts (N=320) related to climate on two social media platforms: Facebook (FB) and Twitter (TW; prior to the 2023 name change to X). These posts consisted of both professional content from media outlets' pages and user-generated content from public pages and groups. The selection process involved identifying posts relevant to the European Union (or Europe) and their ranking was based on users' engagement metrics such as „total interactions" on FB and „reach" on TW. The data for analysis spanned from September to November 2021. During the analysis, we thoroughly considered both the posts, as well as any accompanying links. This means that if a post contained a hyperlink leading to a specific website or news source, we took that into account in the coding process, which involved several aspects, such as identifying the format of the posts, whether they were presented as text, images, videos, or a combination of these elements. Moreover, we determined the agent or entity responsible for posting the content, whether it was an individual user, a media outlet, or another source. Additionally, we coded the primary subject of the posts, identifying the main topic or theme being discussed. To provide a comprehensive analysis, we also examined the type of source associated with each post, differentiating between legacy media, alternative sources, blogs, or any other relevant sources. In cases where the posts included journalistic content, we further examined the type of news presented, whether it was a simple news item, a feature article, an opinionated article, an interview or an editorial.

Another important dimension we considered was the scope of the posts. We distinguished whether they focused on global, European, national, regional, or local matters. Furthermore, we analyzed the implied frame of the posts, classifying whether it was scientific, environmental, societal, or any other relevant categories. By exploring these various dimensions, we aimed to provide a comprehensive and detailed understanding of both the content and context of the posts analyzed.

Based on the theoretical framework provided above, we can summarize our main research questions (RQs) as follows:

- RQ1: What type of news stories gain traction on social media platforms?
- RQ2: Which are the most prominent topics discussed in social media in the period under investigation?
- RQ3: Which is the most popular dimension regarding environmental posts on social media?

RESULTS

In our analysis, the content coming from professional media accounts is juxtaposed to the content derived from users' groups and public pages on FB, as well as content coming from users of TW. Online users that keep a public page to post content are mostly politicians, and to a lesser degree journalists, influencers, and other celebrities. As shown in Table 1, the most popular format of content in social media posts includes links to external sources. Links are used in most posts on TWr, as well as within the media professional accounts. The latter was expected since media organizations use social media platforms to drive traffic on to their websites. However, users on FB's pages and in groups prefer to use images when posting content. This is an interesting finding, since most users do not find it necessary to include a source for their allegations. A compelling image, which may sometimes be also out of context, can be enough to capture attention and drive on engagement. Videos are not yet treated as a popular format by media organizations to present the news. By contrast, this is a popular format among FB users, mostly consisting of politicians, who need to promote their public image.

Table 1: Type of post format (N=320) on Facebook (FB) and Twitter (TW)

	Text	Link	Image	Video
Fb all users	3	6	40	11
Fb groups	3	12	44	0
Fb media	1	56	2	1
Tw all	6	40	9	5
Tw media	0	58	0	2
Total	13	172	95	19

When probing in greater depth the type of links shared on social media platforms, it can be concluded that most of the times they come from legacy news media. One notable exception is users on Twitter that prefer to link their content to other type of sources, mostly coming from public institutions and corporate websites. As shown in table 2, news coming from alternative media and blogs are underrepresented in our sample.

Table 2: Type of news source (links and video) on Facebook (FB) and Twitter (TW)

	Legacy news media	Alternative media*	Blog	Other
Fb all users	8	1	0	0
Fb groups	3	3	1	5
Fb media	57	1	0	0
Tw all	12	2	1	32
Tw media	59	0	0	1
Total	139	7	2	38

*Note: Alternative media refers to online only media such as digital newspapers, news blogs and video-logs (vlogs)

In the context of the typologies of texts employed by online users for news coverage, they are mostly simple news stories, in the sense that they report on facts on climate change and environmental news but provide little context. Analytical articles in our sample are rare and are mostly translations of news pieces from international news organizations. Opinion articles, interviews and editorials are almost non-existent in our sample.

Table 3: Type of news text (Links and Video) on Facebook (FB) and Twitter (TW)

	Simple news item	Feature article	Opinion article	Interview	Editorial
Fb all users	8	1	0	0	0
Fb groups	2	0	0	0	0
Fb media	50	9	1	0	0
Tw all	10	4	1	0	0
Tw media	42	16	0	0	0
Total	112	30	2	0	0

Regarding topics, the cost of energy is the most prominent one during the period under investigation. News media reports on government measures to tackle the rising costs of electricity and gas, while there are posts in our sample from the opposition, criticizing the government's decision to close coal mines and lignite plants during "such turbulent times". For example, one of the most popular posts on FB came from a politician of the far right who wrote:

> Why has the #ND (New Democracy ruling party) gone on a frenzy to close lignite plants, when half of Europe is returning to them due to the energy crisis? It's a million-euro disaster for #Greece. ■ New Democracy suffers from an obsession with non-responsibility. For all the disasters they brought about they blame the pandemic, climate change and the energy crisis. They REFUSE to see their responsibility and mismanagement of the crises. ■ (They) Sell

> off all strategic businesses and use unbelievable excuses. ■ The government refuses to reduce the tax on gasoline, resulting in the citizen suffering to make ends meet. ■ Mainstream media are attacking Kurtz while they themselves are controlled by the government and are running sponsored ads for articles against other (party) presidents. Millions of euros were handed out to the mainstream channels and newspapers...
> (FB post)

Another popular topic on media accounts is Greece's reduction of CO2 emissions in 2020 by 7.2% compared to 2019. This statistic, however, overlooks the reasons behind this "achievement", that point to the economic recession rather than the implementation of environmentally friendly policies.

Policies for climate change are popular among both FB and TW users, (mostly politicians presenting the newly created Ministry of Climate Change and Civil Protection), while general and broader content regarding the environment (unusual weather conditions, wildfires, floods etc.), can be found in FB groups, as well as on media organizations' accounts on both platforms.

Users in FB groups and pages also post more generic content about nature, flora, and fauna. Many of these posts were a call to action for people to oppose the new legislation regarding stray animals. In some of these posts the EU appears as an evil organization imposing its plan of wiping out both Greek people and animals and the Greek government as their willing collaborator. Most of the posts were also calling for people to revolt.

> (...) the criminals of the state who carry out the European death – directive of "legal" euthanasia to "reduce" their (strays') population in the cheapest and most immoral ways. They will leave nothing standing, neither people nor animals (FB).

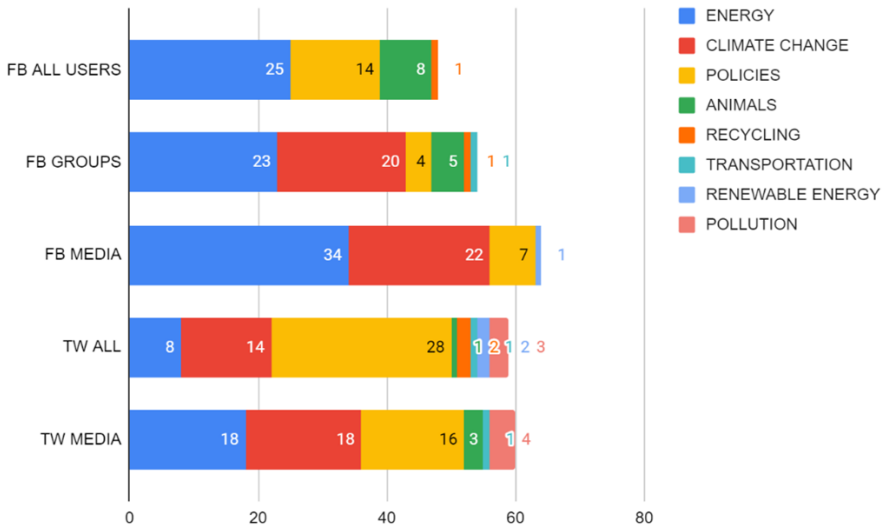
Another controversial issue that occurred mostly on FB pages falls under the renewable energy category—wind turbines. This topic seems to divide politicians and institutions on the one side of the argument and local communities on the other. A characteristic example of a popular post in a Facebook group reads as follows:

> (…) We here, once again pioneers, set out to destroy everything, selling off our most important national capital, which is none other than our natural wealth. Local communities, numbed, uninformed, or misinformed by corporate "parrots" about the coming destruction and the extent of the interventions in their place, most of the time remain silent spectators. The map of terror changes the landscape of Greece...we will see with absolute clarity how the

> Greek landscape will have been shaped in a few years, when the 20,000 wind turbines will have been installed in our most proud mountain ranges, in our most dreamy desert islands, in the most charming parts of our inhabited islands, in our capes known for their wild beauty (…).
> (FB group)

Other topics such as recycling, pollution, waste, and water management are discussed to a far lesser extent. Most of these topics are connected to European campaigns for raising awareness. This was to be expected since the period of investigation included the European Week for Waste Reduction (EWWR). As shown in Chart 1, TW users engage in a wider range of topics compared to those on FB.

Chart 1: Main topic of each post (N=320)



In the context of the environment, the most popular dimensions are societal, followed by ecological lastly scientific (Chart 2). A careful look at our sample confirms that climate change and environmental news are turning into highly politicized topics. Polarization can bring under the same umbrella a range of people supporting various causes, from the animal rights movement to the Euroscepticism.

As shown in Chart 3, the economic impact is the most prominent dimension in the news, followed by climate change policies. However, FB group users are mostly preoccupied by climate change's impacts on humans, while TW users are posting issues that raise citizens' awareness (campaigns, events etc.). Climate politics is a popular dimension, especially on TW, reflecting a reasonable trend since it is a popular platform among politicians, journalists, and activists in Greece.

Chart 2: Climate dimension in each post (N=234)

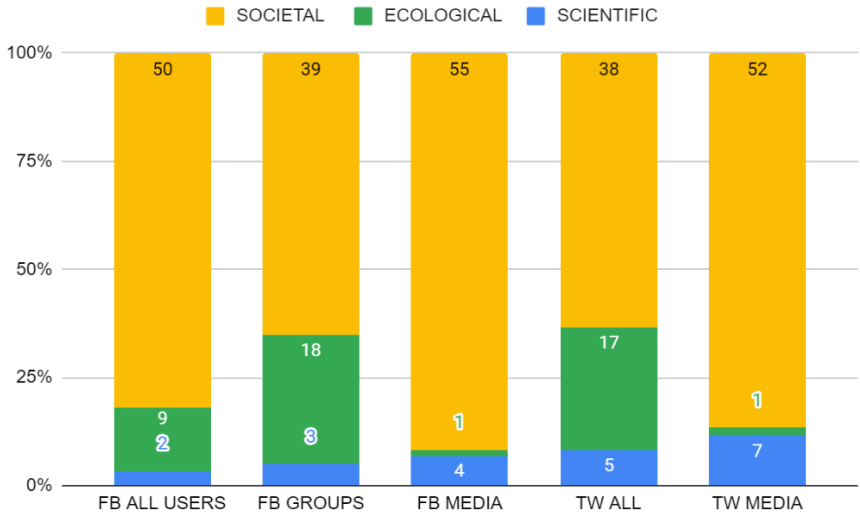
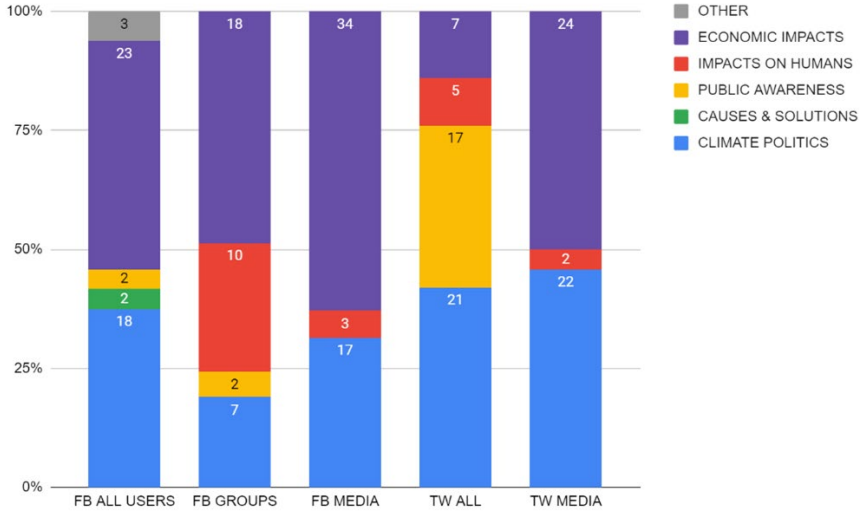


Chart 3: Aspects of the societal dimension



DISCUSSION AND CONCLUSIONS

In the present study, we examined the most popular posts regarding climate in terms of engagement on two social media platforms, Facebook (FB) and Twitter (TW). During the period under investigation (September to November 2021) the cost of energy is raised as the most prominent topic of the online public

sphere. It is a time frame preceding the Russian invasion of Ukraine with the cost of energy having already risen considerably. This topic was expected to be of high importance for the population in Greece, since almost 1 in 5 citizens could not heat their houses properly, even before the latest developments (Eurostat, 2023).

According to research findings, policies aimed at tackling the climate change issue also show a high incidence on both social media platforms. The supremacy of climate change policies, as a debatable topic raised primarily by FB and TW users, reflects an interesting trend. Our findings are in accordance with previous research focusing on dominant frames appearing on TW accounts dealing with climate movement (Chen et al., 2023). Calling people to action has also been found to be another major topic raised by the most viewed posts under investigation, particularly those disseminated on FB. This finding has already been confirmed by past research investigating the activist aspect of the environmental issue on Instagram (Molder et al., 2022) and examining the climate movement actors on TW (Chen et al., 2023).

The research findings indicate that the articles shared on both platforms are mostly simple news stories. The sources are traditional media and other institutional actors such as the government, the European Commission, and other institutions and, to a much lesser degree NGOs. Moreover, the legacy news media that dominate the online public sphere, report on climate news based on press releases coming mostly from the government and the European Commission, and content from other European media. Our findings echo the results of Kleinberga (2022) on climate representation on the Latvian media, where she concludes that most of the media rely for the coverage of climate issues on authoritative sources (politicians and government officials), thus enabling the promotion and the diffusion of official political narrative to the public sphere.

In accordance with the research projects implemented so far in the field of environmental crisis coverage, our findings indicate that news organizations report on the climate issue displaying the societal dimension and place emphasis on the economic impacts of climate change. It is worth mentioning that our research reflects the findings of an earlier study which compared the media coverage of climate between the Global North and the Global South (Hase et al., 2021). That study revealed that while media organizations in countries belonging to the Global North show a preference on climate science, coverage in countries of the Global South is mainly focused on the societal outcomes and the implications of climate change in people's lives.

The societal aspect of the environmental issue dominates in terms of frequency of occurrence is a clear indication of the social media platforms' potential to operate as a participatory public space. In such a space marginalized or under-represented voices can also be heard, alongside the strictly scientific ones. However, this emphasis should not be perceived as an exclusive type of framing adopted

solely by social media. In effect, a wide range of framing tactics found in the journalistic coverage of the climate change is adopted by the legacy news media. For example, Schafer et al. (2013:169) conclude in their study that extreme weather events and climate characteristics, or scientific publications do not play a significant role in increasing media's attention to climate issues. Plainly said, science alone cannot push the climate change agenda forward. By contrast, events associated with institutionalized politics that act as triggers of media coverage regarding the climate change, seem far more effective. Therefore, it is a shared feature appearing both on legacy news media output and on social media platforms content, implying that the latter is informed by limited dynamics in setting an alternative agenda. Online users on Facebook, however, do promote content related to climate change impacts on humans. News items related to climate politics have a significant presence on both platforms, as well as among all groups under study. On the other hand, the special attention paid by the news organizations' posts to the economic impact is an approach found as well in legacy news media journalistic coverage (Engesser & Brüggemann, 2015) and can be partly attributed to the tendency of media outlets to use social media platforms as a means of attracting the online audience to their news portals.

The striking aspect is that although citizens in Greece have little to no trust in the news media, in government, and in institutions, they do not question climate change and EU policies in this field. This is reasonable since citizens in Greece experience the consequences of climate change firsthand, as their properties are endangered by natural disasters every year. There are certainly groups of social media users and popular posts of far-right politicians that challenge the policies implemented in the environmental sector, however their content remains for now on the fringes of the online public sphere. This finding is worrying since environmental topics become increasingly politicized.

Between the two platforms under study, Twitter seems to be more oriented to contributing to citizens' awareness, through postings on campaigns and on relevant events, despite the prevalence of climate politics as a popular topic being disseminated. This feature partly refers to unconventional narratives, appearing on the platform, without disregarding, at the same time, the mainstream discourse of the institutional actors. This is in line with previous research highlighting that even though Twitter is highly concerned with mainstream media content, it provides some space for viewpoints' expression and discussion on issues neglected by the mainstream media (Rogstad, 2016).

By and large, the inefficiency of social media users to establish a new or alternative agenda in the public debate regarding the environmental crisis should come as no surprise, since in contemporary media ecology a reciprocal influence among various media entities (traditional media, online media, and social networking sites) in terms of the agendas being promoted is taking

place. Particularly in polarized issues, such as the environmental crisis or the climate change, the question of the potential interrelationship between mainstream media and new digital platforms becomes more relevant than ever with the inter-media agenda setting (Kim et al., 2017) possibly affecting the quality of democratic public discourse.

The homogeneity of the news shared on social media platforms must be further examined, as well as the challenges journalists face when reporting on climate change, since people tend to form their ideas on environmental issues mostly from the news they get.

Despite these particularities and far from the competitive relationship between social media platforms and legacy news media in terms of agenda setting dynamics, it is believed that online technologies, including WEB 2.0 applications, carry the potential in promoting pro-environmental awareness and action, which incorporates all environmentally friendly and sustainable attitudes and stances in life (Ballew et al., 2015). As Carvalho suggests (2010:175), citizens' roles as "political subjectivities" with the power to address the issue of climate change has significantly been downsized by the mediated public discourse. However, in the light of the new media era, the prospects of citizen mobilization and the re-inventing of themselves as political agents of change on societal issues are yet to be discovered.

REFERENCES

Badullovich, N., Grant, W. J., & Colvin,R. M. (2020). Framing climate change for effective communication: a systematic map. *Environ. Res. Lett., 15*(12):123002. https://doi.org/10.1088/1748-9326/aba4c7

Ballew, M.T., Omoto, A.M., & Winter, P.L. (2015). Using Web 2.0 and Social Media Technologies to Foster Proenvironmental Action. *Sustainability*, 7, 10620-10648.

Broadbent, J., Sonnett, J., Botetzagias, I., Carson, M., Carvalho, A., Chien, Y.-J., Edling, C., Fisher, D., Giouzepas, G., Haluza-DeLay, R., Hasegawa, K., Hirschi, C., Horta, A., Ikeda, K., Jin, J., Ku, D., Lahsen, M., Lee, H.-C., Lin, T.-L. A., … Zhengyi, S. (2016). Conflicting Climate Change Frames in a Global Field of Media Discourse. *Socius, 2*. https://doi.org/10.1177/2378023116670660

Carvalho, A. (2010). Media (ted) discourses and climate change: a focus on political subjectivity and (dis)engagement. *WIREs Climate Change, 1* (2), 172-179.

Çela, E. (2015). Social Media as a New Form of Public Sphere. *European Journal of Social Science Education and Research*, *2* (3), 126–131. https://doi.org/10.26417/ejser.v4i1.p195-200

Chen, K., Molder, A. L., Duan, Z., Boulianne, S., Eckart, C., Mallari, P., & Yang, D. (2023). How Climate Movement Actors and News Media Frame Climate Change and Strike: Evidence from Analyzing Twitter and News Media Discourse from 2018 to 2021. *The International Journal of Press/Politics*, *28* (2), 384–413. https://doi.org/10.1177/19401612221106405

Engesser, S., & Brüggemann, M. (2015). Mapping the minds of the mediators: The cognitive frames of climate journalists from five countries. *Public Understanding of Science,* 1–17. https://doi.org/10.1177/0963662515583621

Eurostat (2023). "7% of EU population unable to keep home warm in 2021", Available at: https://ec.europa.eu/eurostat/web/products-eurostat-news/w/DDN-20230515-1. (Access: 14 August 2023)

Eurobarometer (2021). Climate Change Report, Fieldwork: March – April 2021, *Special Eurobarometer* 513. Available at: https://europa.eu/eurobarometer/surveys/detail/2273 (Accessed 15 August 2023).

Gkiouzepas, G., & Botetzagias, I. (2017). Climate change coverage in Greek newspapers: 2001–2008. *Environmental Communication*, *11*(4), 490–514.

Halkos, G. E., & Gkampoura, E. C. (2021). Evaluating the effect of economic crisis on energy poverty in Europe. *Renewable and Sustainable Energy Reviews*, *144*, 110981.

Hase, V., Mahl, D., Schäfer, M.,& Keller, T. (2021). Climate change in news media across the globe: An automated analysis of issue attention and themes in climate change coverage in 10 countries (2006–2018). *Global Environmental Change*,*70*.10.1016/j.gloenvcha.2021.102353.

Iosifidis, P. (2011). The Public Sphere, Social Networks and Public Service Media, *Information, Communication & Society*, 14: 5, 619–637, https://doi.org/10.1080/1369118X.2010.514356

Jungherr, A., Posegga, O., & An, J. (2019). Discursive power in contemporary media systems: A comparative framework. *The International Journal of Press/Politics, 24*(4), 404–425. https://doi.org/10.1177/1940161219841543

Karyotakis, M. A. (2022). Covering the wildfire of Mati in Greece: Undermining the systemic human impact on the environment. *Journalism Practice*, *16*(2–3), 425–442.

Kleinberga V. (2022). Global, Not Yet Local: Media Coverage of Climate Change and Environment Related Challenges in Latvia. *Information & Media, 93,* 8–27. https://doi.org/10.15388/Im.2022.93.58

Kostarella, I., Theodosiadou, S., & Tsantopoulos, G. (2013, April). The coverage of environmental issues by the Greek media from the editors' perspective. In *GV-Global Virtual Conference*.

Kruse, L. M., Norris, D. R., & Flinchum, J. R. (2018). Social Media as a Public Sphere? Politics on Social Media. *The Sociological Quarterly*, *59* (1), 62–84. https://doi.org/10.1080/00380253.2017.1383143

Molder, A. L., Lakind, A., Clemmons, Z. E., & Chen, K. (2022). Framing the Global Youth Climate Movement: A Qualitative Content Analysis of Greta Thunberg's Moral, Hopeful, and Motivational Framing on Instagram. *The International Journal of Press/Politics*, 27 (3), 668–695. https://doi.org/10.1177/19401612211055691

Newman, N., Fletcher, R., Eddy, K., Robertson, C. T., & Nielsen, R. K. (2023). Digital News Report 2023.*Reuters Institute*.

Rogstad, I. (2016): Is Twitter just rehashing? Intermedia agenda setting between Twitter and mainstream media, *Journal of Information Technology & Politics*, *13* (2), 142–158. https://doi.org/10.1080/19331681.2016.1160263

Roshandel Arbatani, T., Labafi, S., & Robati, M. (2016). Effects of social media on the environmental protection behavior of the public (Case study: Protecting Zayandeh-rood river environment). *International Journal of Environmental Research., 10*(2), 237–244.

Schäfer, M. S. (2015). Climate change and the media. In J. D. Wright (Ed.), *International encyclopedia of the social & behavioral sciences* (2d. ed., Vol. 3., pp. 853–859). Elsevier.

Schäfer, M. S., Ivanova, A., & Schmidt, A. (2013). Climate change coverage: more politics, less weather. *EJO – European Journalism Observatory, 1–4*. https://nbn-resolving.org/urn:nbn:de:0168-ssoar-395039.

Schäfer, M., & O'Neill, S. (2017). Frame Analysis in Climate Change Communication. In M. C. Nisbet, S. S. Ho, E. Markowitz, S. O'Neill, M. S. Schäfer & J. Thaker (Eds.), *Encyclopedia of climate change communication,* Online first. New York: Oxford University Press.10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-487.

Shirky, C. (2011). The Political Power of Social Media Technology, the Public Sphere, and Political Change. *Foreign Affairs,90* (1), 28–41.

Stecula, D. A., & Merkley, E. (2019). Framing Climate Change: Economics, Ideology, and Uncertainty in American News Media Content from 1988 to 2014. *Frontiers in Communication,4,* 6.

Su, Y., & Borah, P. (2019). Who is the agenda setter? Examining the intermedia agenda-setting effect between Twitter and newspapers. *Journal of Information Technology & Politics*, *16* (3), 236–249, https://doi.org/10.1080/19331681.2019.1641451

Tsekos, C. A., & Matthopoulos, D. P. (2008). Environmental news in Greece: evaluation of the way newspapers deal with environmental issues. *International Journal of Environmental Studies*, *65*(2), 209–218.

Vikström, S., Mervaala, E., Kangas, H.-L., & Lyytimäki, J. (2023) Framing climate futures: the media representations of climate and energy policies in Finnish broadcasting company news. *Journal of Integrative Environmental Sciences, 20* (1). https://doi.org/10.1080/1943815X.2023.2178464

Vu, H. T., Blomberg, M., Seo, H., Liu, Y., Shayesteh, F., & Do, H. V. (2021). Social Media and Environmental Activism: Framing Climate Change on Facebook by Global NGOs. *Science Communication*, *43*(1), 91–115. https://doi.org/10.1177/1075547020971644

Wohn, D. Y., & Bowe, B. J. (2016). Micro Agenda Setters: The Effect of Social Media on Young Adults' Exposure to and Attitude Toward News. *Social media + Society, 2*(1). https://doi.org/10.1177/2056305115626750