

Introduction.
Climate Change Discourse.
Remediation and Recontextualization in News and Social Media

As public debate over climate change and environmental issues has greatly intensified over the years, a number of studies have pointed out that citizens' awareness, attitudes, and actions towards climate change are shaped by mediated information.¹ News media play a pivotal role in the popularization of climate science and scientific evaluations. Yet, bridging the gap between experts and laypeople may be extremely difficult in the case of 'contested science' such as climate change. Scientists adopt non-persuasive communication, trusting data to speak for itself, and describe findings in ways that respond to the complexity of the phenomena under observation. They are cautious and generally speak about probabilities, which do not translate well in the "unequivocal commentary that is valued in the press".²

As many scholars have demonstrated, the recontextualization of climate change science in news reports is largely influenced by news values and professional journalism.³ In their groundbreaking study of U.S. quality newspapers, Boycoff and Boycoff argued that the distortion of scientific knowledge in quality newspapers was due to the journalistic norm of bias as balance.⁴ They demonstrated that while the consensus on anthropogenic climate change science was very high among scientists already in the 1990s, the position and self-promotion of very few skeptical scientists had been overrepresented in newspaper discourse. Moreover, news discourse scholars concur that the coverage of climate change is cyclical and changes over time in order to avoid editorial fatigue.⁵ For instance, in the 1991-1996 period, journalists started to resort to personalization and sensationalism. Climate change science was increasingly personalized by news professionals, who started to connect climate change science to weather-related events and extreme natural events, such as floods, heat waves, and cyclones, to provide sensational stories that were more significant for the general public and entertaining than climate science planning and statistics. This perhaps overworn pattern was picked up by Donald Trump who in a famous tweet noted: "In the East, it could be the COLDEST

¹ Cinzia Bevitori, "Values, Assumptions and Beliefs in British Newspaper Editorial Coverage of Climate Change", in Christopher Hart and Piotr Cap, eds., *Contemporary Critical Discourse Studies* (London: Bloomsbury Academic, 2014), 603-625; Maxwell T. Boycoff and Jules M. Boycoff, "Balance as Bias: Global Warming and the US Prestige Press", *Global Environmental Change*, 14.2 (2004), 125-136; Maxwell T. Boycoff and Jules M. Boycoff, "Climate Change and Journalistic Norms: A Case-study of US Mass-media Coverage", *Geoforum*, 38.6 (2007), 1190-1204; Anabela Carvalho and Jacquelin Burgess, "Cultural Circuits of Climate Change in U.K. Broadsheet Newspapers, 1985-2003", *Society for Risk Analysis*, 25.6 (2005), 1457-1469; Katherine E. Russo, *The Evaluation of Risk in Institutional and Newspaper Discourse: The Case of Climate Change and Migration*, (Naples: Editoriale Scientifica, 2018).

² Boycoff and Boycoff, "Climate Change and Journalistic Norms", 3.

³ Anabela Carvalho, "Representing the Politics of the Greenhouse Effect: Discursive Strategies in the British Media," *Critical Discourse Studies*, 2.1 (2005), 1-29; Cinzia Bevitori, *Representations of Climate Change: News and Opinion Discourse in UK and US Quality Press: A Corpus-Assisted Discourse Study* (Bologna: Bononia U. P., 2010); Katherine E. Russo, "Speculations about the Future: Populism and Climate Change in News Discourse", in Encarnación Hidalgo-Tenorio et al., eds., *Populist Discourse: Critical Approaches to Contemporary Politics* (London and New York: Routledge, 2019), 190-206.

⁴ Boycoff and Boycoff, "Balance".

⁵ Boycoff and Boycoff, "Balance"; Carvahlo and Burgess, "Cultural Circuits"; Allan Bell, "Media (Mis)Communication on the Science of Climate Change," *Public Understanding of Science*, 3.3 (1994), 259-275.

New Year’s Eve on record. Perhaps we could use a little bit of that good old Global Warming that our Country, but not other countries, was going to pay TRILLIONS OF DOLLARS to protect against. Bundle up!”

Subsequently, the 1997-2003 period was characterized by a preference for scandals and an increased tendency to speak about backstage issues like the interests and commitments of actors involved in science-making. Following this line of thought, it may be argued that the last fifteen years have been characterized by a preference for spectacularisation, the coverage of environmental disasters rather than chronic social problems or long-term consequences, and special events and announcements by prominent institutions and politicians. In order to maximize persuasion and reach the lay audience, news operators often background planning and privilege spectacular, unexpected events, which have a much higher chance of becoming news. Indeed, as van Dijk put it, ordinary events and people usually fall outside the press picture and “may only collectively be involved as the patients of political action or the victims of catastrophes, or individually, in negative terms, for instance in crime news”.⁶

Nevertheless, citizens mostly seek information and form their opinions about climate change by reading online news, and increasingly share their opinions through social media platforms such as, for example, Instagram, Facebook and X (formerly Twitter). In this process, the networking of different social practices constrains and transforms language events as they transit across domains or fields of social life. Thus, the processes of remediation⁷ as well as resemiotization⁸ play an increasingly crucial role in changing the dynamics of interaction and public engagement, and as a consequence public opinion. In fact, remediating scientific social practices in new domains of reception, consumption, and production entails a critical (re)definition of meaning and values as an effect of new contextual factors.

Over the years, research on the public communication of science has largely emphasized that the process of popularization is not merely defined by a simplification or transformation of specialized discourse into a non-specialized one meant for a broad audience.⁹ Indeed, specialized and popularized discourse interact in the process of knowledge construction.¹⁰ As Calsamiglia and Van Dijk argue,¹¹ popularization is a “social process consisting of a large class of discursive-semiotic practices” involving a “recontextualization of scientific knowledge and discourse” into a different domain to make it more accessible to the lay audience. The concept of recontextualization thus entails a transformation “of meaning or meaning potentials” in many different and complex ways.¹² Most crucially, the recontextualization of information often involves re-evaluation practices; i.e., a change in

⁶ Teun A. van Dijk, *News Analysis: Case studies of International and National News in the Press* (London and New York: Routledge, 1993), 140.

⁷ David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, Mass: The MIT Press, 2002).

⁸ Rick Iedema, “Multimodality, Re-semiotization: Extending the Analysis of Discourse as Multi-semiotic Practice”, *Visual Communication*, 2.1 (2003), 29-57.

⁹ Massimiliano Bucchi, “When scientists turn to the public: Alternative routes in science communication”, *Public Understanding of Science*, 5.4, (1996), 375-394; Brian Trench and Massimiliano Bucchi, “Science communication, an emerging discipline”, *JCOM*, 09:03, (2010), Brian Trench and Massimiliano Bucchi, “Rethinking Science communication as the social conversation around science”, *JCOM*, 20.03 (2021); Greg Myers, “Discourse Studies of Scientific Popularization: Questioning the Boundaries”, *Discourse Studies*, 5.2, (2003), 265-279; Richard Whitley, “Knowledge producers and Knowledge Acquirers: Popularisation as a Relation Between Scientific Fields and Their Publics”, in Terry Shinn and Richard Whitley, *Expository Science: Forms and Functions of Popularisation, Sociology of the Sciences Yearbook*, 9 (Dordrecht, Netherlands: Reidel, 1985), 3-28.

¹⁰ Meyers, “Discourse Studies”.

¹¹ Helena Calsamiglia and Teun A. Van Dijk, “Popularization Discourse and Knowledge About the Gnome”, *Discourse and Society*, 15.4 (2004), 371.

¹² Per Linell, *Approaching Dialogue: Talk, Interaction and Contexts in Dialogical Perspectives* (Amsterdam/Philadelphia: John Benjamins, 1998), 155; Maria J. Luzón, “Public Communication of Science in Blogs: Recontextualizing Scientific Discourse for a Diversified Audience”, *Written Communication*, 30.4 (2013), 428-457; Marina Bondi et al., eds., *Discourse In and Through the Media: Recontextualizing and Reconceptualizing Expert Discourse* (Cambridge: Cambridge Scholars Publishing, 2015).

standards, norms and values¹³. The process is, of course, not a neutral one as the media actively contribute to this process of transformation, also due to the influence of news values.¹⁴

Drawing on Bernstein's seminal work on the sociology of educational knowledge,¹⁵ in which the concept is discussed in terms of "[a] principle for appropriating other discourses and bringing them into a special relation with each other for the purposes of their selection, transmission and acquisition",¹⁶ scholars from different theoretical perspectives have furthered the debate in more critical terms.¹⁷ As Norman Fairclough¹⁸ famously put it:

Communicative events and social practices are recontextualised differently depending upon the goals, values and priorities of the communication in which they are recontextualised.

From this perspective, the process of recontextualization is thus seen as a dialectical-relational process in which certain categories of discourse and meanings are transmuted into new ones. Indeed, the resulting transformation of the relationship between different social fields and embodied meanings associated with "certain social practices, or network of practices"¹⁹, is strongly associated with (macro) contexts of historical and social change, which is driven by power dynamics.²⁰ Indeed, according to Wodak,²¹ recontextualization is one of the most prominent linguistic processes 'governing historical change':

texts (and the discourses, genres and arguments which they deploy) move between ... different contexts, and are subject to transformations whose nature depends upon the relationships and differences between such contexts.

Pushing the debate further, Chouliaraki and Fairclough²² argue that at the very heart of recontextualization is a constant tension between 'colonization' and 'appropriation'; on the one hand, discourses or representations of events, actions, and identities, are transformed from one context to another, following particular 'recontextualizing principles' associated with the new context; on the other, discourses may strategically be incorporated into other discourses pursuing different goals.

¹³ Bevitori, *Values*, 603; Susan Hunston and Geoff Thompson, eds., *Evaluation in Text: Authorial Stance and the Construction of Discourses* (New York: Oxford University Press, 2001); Jim Martin and Peter R. White, *The Language of Evaluation: Appraisal in English* (London; Palgrave MacMillan 2005).

¹⁴ Monika Bednarek, *Evaluation in Media Discourse: Analysis of a Newspaper Corpus* (London/New York, Continuum 2006); Monika Bednarek and Helen Caple, *The Discourse of News Values: How News Organizations Create Newsworthiness* (New York: Oxford U. P., 2017).

¹⁵ Basil Bernstein, *The Structuring of Pedagogic Discourse* (London: Routledge, 1990).

¹⁶ *Ibid.*, 183-184.

¹⁷ Norman Fairclough, *Critical Discourse Analysis: The Critical Study of Language* (London: Longman 1995); Norman Fairclough, *Analyzing Discourse: Text Analysis for Social Research* (London: Routledge, 2003); Teo van Leeuwen and Ruth Wodak, "Legitimizing Immigration Control: A Discourse-historical Analysis", *Discourse Studies*, 1.1 (1999), 83-118; Ruth Wodak, "Recontextualization and the Transformation of Meanings: A Critical Discourse Analysis of Decision Making in EU Meetings about Employment Policies", in Srikanth Sarangi and Michael Coulthard, eds., *Discourse and Social Life* (London: Pearson Education Limited, 2000), 185-206.

¹⁸ Fairclough, *Critical Discourse*, 41.

¹⁹ Franco Zapettini and Jeffrey Unerman, "'Mixing' and 'Bending': The Recontextualisation of Discourses of Sustainability in Integrated Reporting", *Discourse & Communication*, 10.5 (2016), 524.

²⁰ Norman Fairclough, *Discourse and Social Change* (Cambridge: Polity Press, 1992).

²¹ Ruth Wodak, "Complex Texts: Analysing, Understanding, Explaining and Interpreting Meanings", *Discourse Studies*, 13.5 (2011), 629.

²² Lilie Chouliaraki and Norman Fairclough, *Discourse in Late Modernity: Rethinking Critical Discourse Analysis* (Edinburgh: Edinburgh University Press, 1999).

Social media have become an indispensable tool in shaping public perception and galvanizing efforts to address or deny the pressing challenges of climate change. As mentioned, platforms like X, Facebook, and Instagram serve as dynamic arenas for the dissemination of information, fostering dialogue, and mobilizing action. Hashtags such as #ClimateAction, #ClimateChange, and #GlobalWarming have become virtual rallying points, allowing users to participate in a global conversation and share diverse perspectives on the climate change crisis. Influencers, environmental organizations, and scientists utilize these platforms to disseminate real-time updates, scientific findings, and calls to action, amplifying the reach of climate change awareness. Hence, social media platforms provide an ideal and immediate window into how people evaluate news-based climate science communication and how they grapple with uncertainty about facts, options, beliefs and common values. The remediation of climate change science discourse in distant and offline social media conversations may also nurture a negotiation of the meaning assigned to risks based on the user's own evaluation and opinion.²³ As Michele Zappavigna put it, social media users “rarely present bald facts or narrate activities and events without adopting some kind of evaluative stance [...] sharing and contesting opinion and sentiment is central to social media discourse”.²⁴

Climate change activism has also found a powerful ally in web-based genres, leveraging the digital realm to mobilize global support and raise awareness. Although they have received scarce scholarly attention, E-petitions have emerged as a prominent tool, allowing individuals from diverse geographical locations to unite under a common cause. These online petitions not only facilitate the collection of signatures but also serve as a virtual platform for sharing information, fostering community engagement, and pressuring policymakers. Concurrently, web documentaries have become a compelling medium to communicate the urgency of climate action. Through gripping narratives and visually immersive storytelling, these documentaries leverage the global accessibility of the internet to convey the impacts of climate change, inspiring audiences to take action. Together, e-petitions and web documentaries exemplify the digital evolution of climate change activism, transcending physical borders and connecting a worldwide audience in the collective pursuit of a sustainable future.

Gaining a deeper knowledge and awareness of the mechanisms of remediation and its recontextualization in specific domains and contexts may thus prove crucial. This special issue engages with a broad range of case studies which, we hope, will foster dialogue and discussion that will enhance and enrich our understanding of this complex process. It opens with a timely article by Antonella Napolitano, who focuses on the recontextualization of climate change scientific knowledge in news discourse during the coronavirus pandemic. In addressing how climate change was connected to a greater emphasis or minimisation of the positive consequences of confinement on the planet, it concludes that during the lockdown information started to change. It shifted its focus towards personal and community stories related to the impact of climate change, such as the discussion of the effects of climate change on people's lives and futures. This shift denotes a move away from the previous emphasis on climate solutions and remedies to solutions for individuals and communities that are directly affected, as well as possible changes in daily habits that can positively affect climate change control. The recontextualization of climate change science in political discourse is addressed in the articles by Denise Milizia and Marisa Della Gatta. In comparing the rhetoric of U.S. presidents in debates, and interviews vis-à-vis what they have said/written in social media, Milizia found that ‘global warming’ was more commonly associated with tweets that used a hoax frame and was used more often by Republicans than Democrats. Moreover, her findings showed that Republican

²³ Michele Zappavigna, *Discourse of Twitter and Social Media: How We Use Language to Create Affiliation on the Web* (London: Continuum, 2012).

²⁴ Michele Zappavigna, “Evaluation”, in Christian R. Hoffmann and Wolfram Bublitz, eds., *Pragmatics of Social Media* (Berlin/Boston: De Gruyter Mouton, 2017), 437.

presidents, i.e., Bush and Trump, have turned away from the climate emergency, while Democratic presidents, i.e., Obama and Biden, have taken the issue seriously. This polarization becomes more apparent in social media, where tweeters, lacking ‘gatekeepers’, largely dismiss climate change by denying its very existence. With a shift towards the often-overlooked Australian context, Marisa Della Gatta focuses on the use of metaphors to describe phenomena linked to climate change. More specifically, she focuses on the use of the “net zero” metaphor in both presidential speeches and tweets by the Australia Prime Ministers in the period of time between 2013 and 2022. She concludes that the net-zero metaphor may provide a useful reference for action only if translated into clear and concrete pathways for nation states, subnational entities, and other organisations both at a local and international level.

Moving on to a more direct analysis of recontextualization of specialized discourse in social media, Marina Niceforo investigates the linguistic remediation of specialised concepts from the sixth IPCC report on climate change (2022) in Twitter discourse by international environmental organisations and institutions. Her analysis shows that a large part of remediated texts are produced within a scientifically confident environment, combine informative and persuasive intent, and provide a connection between scientific literature and popular communication. Moreover, she argues that while ideology-driven communication in popularising discourses may positively influence people’s understanding of climate change and pro-environment behaviour, polarised communication may hinder dissemination of objective, unbiased scientific information.

Articles by Marina Cristina Aiezza and Arianna Del Gaudio address climate change activism by taking into consideration two different genres, petitions and web documentaries. Maria Cristina Aiezza examines e-petitions calling for action against climate change, published on the popular site *Change.org* in the USA and UK. She considers the persuasive strategies employed in user-generated discourse, and compares the trends emerging in the two national contexts. The analysis centres on how petitioners engage with climate change science, re-mediating scientific concepts by explaining global phenomena in their own words and referring to authoritative sources. The study thus investigates the use of interactive metadiscourse devices typical of popular science writing. Findings indicate that climate change was perceived as a well-documented threat requiring urgent action, and typically addressed together with other topics such as wildlife and water conservation in the USA, and land protection in the UK. Arianna Del Gaudio provides an example of the recontextualization of climate change discourse in web documentaries delivered on online media platforms such as YouTube. More specifically, she focuses on discourses of action and transformation articulated by activists interviewed in the web documentary *Seat at the Table*. Her analysis shows that in the web documentary, climate change is reframed through a crucial reflection on present and future imaginaries. The latter are imagined through prevalently positive emotions. In fact, more emphasis was placed on hope and optimism in interviewees’ future representation.

The issue concludes with an overview by Aureliana Natale on Climate Trauma and Activism. Her article aims to reflect on the multiple and often opposing effects of the climate crisis and trauma from a cultural point of view. In the first part, she considers climate change and its effects, such as anxiety, depression and pre- and post- traumatic stress disorder. Subsequently, she focuses on public reactions and the possibility of positive engagement fostered by social media platforms, in particular Instagram and TikTok. Natale argues that by informing the public about the physical and mental consequences of climate change, social media can raise awareness and shape public opinion, inspiring action. Hence, she concludes that anxiety and activism may emerge as contrasting outcomes of media coverage on climate change.