



Article

Approaches to the Anthropocene from Communication and Media Studies

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Abstract: This paper explores how communication and media studies have engaged with the concept of the Anthropocene in recent years. The purpose of this study is to outline the most relevant theoretical and conceptual contributions from communication science and media studies to issues related to climate change, global sustainability and the Anthropocene. A literature review on the matter shows that the field of communication research is diverse and heterogeneous, and that it puts forward different concepts and theories that deal with media as the environment or the environment as media. Environmental communication and environmental humanities frame approaches to media representations of environmental issues, whereas elemental analysis focuses on the essence of media, its material dimensions and its entanglements with social practices. From the dialogue and interdisciplinary debates among these disciplines, new approaches such as environmental media studies arise. Differences among theories have to do with the definition of media or the consideration of humanity in relation to nature or technology. In sum, communication and media studies offer interdisciplinary approaches and a nuanced understanding of our socio-natural relations, which will become more and more mediated in the years to come.

Keywords: Anthropocene; media; communication; media theory; communication science; environmental communication; ecomedia; media life



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1. Introduction

Framed within social sciences and the humanities, communication science and media studies are situated within a wider field of research that is concerned with communication—face to face or computer-mediated—, media ownership and the production, distribution and effects of texts that have a relevant role in contemporary societies. Technological innovation and the adoption of digital technologies worldwide have broadened the concerns and interests of the discipline, which is more and more difficult to frame and define within a unique field of knowledge (McQuail and Deuze 2020). In that sense, communication can also serve as a post-disciplinary analysis (Waisbord 2019), since it converges with other traditions and fields, which makes its perspectives especially valuable when approaching interdisciplinary debates and complex objects of study, such as the environment (Cantrill 2015).

Scholarship on communication and media has contributed to specialized knowledge on topics such as the production and distribution of media texts, critical approaches to new media, nuanced interpretations of media effects in specific contexts, (dis)continuities in media logics and audience habits or the analysis of discourse and storytelling. Above all, however, communication and media studies constitute an interesting approach to complex phenomena, because they grant interdisciplinary analysis. As Livingstone (2011) claims, it is this cross-fertilization that makes communication and media studies interesting and valuable. For instance, as the global pandemic has shown, media have been a key resource and an important reference for making sense of the situation. What happens *outside* media cannot be seen separately from what is happening *in* media anymore (Deuze 2020), and these complex issues are as important as the way they are being addressed (Allenby 2008).

Attending to the core challenges for social science and humanities in the study of the Anthropocene (Palsson et al. 2013), communication science can be useful in building transdisciplinary approaches and orienting ideas of social organization and a nuanced understanding of new technologies. Considering that technology and media are and will be at the center of our lives in the years to come and that we are increasingly concerned about the impact of e-waste, energy consumption and other negative environmental, political or social consequences of media use (Maxwell and Miller 2012), there is a pending discussion on how to make sense of our mediated relations, both with each other and with the planet we live in (Bergillos 2020). This situation arrives as a consequence of the growth of communication technologies and their effect on people's lives, but also if we consider the Anthropocene, the scientific hypothesis that examines the decisive human impact in the Earth's ecosystems. How can we develop a nuanced understanding of the role of media in the human epoch?

This article focuses on the theoretical approaches that communication science and media studies offer to the conceptualization of the Anthropocene and the contributions that researchers from different parts of the world have made to the study of the relationships between media, nature and society. The general objective of this paper is to introduce the ways of theorizing media and the environment from the perspective of communication science and media studies. Specifically, this text is interested in the implications of media in the supposed new geological epoch, given that our socio-natural relations are and will be mediated by technology (Arias-Maldonado 2015a) and that media and technology are more and more present in today's societies and in our everyday life (Deuze 2012). At the same time, we are increasingly aware of the impact that our daily activities, mediated or not, are having on the planet we inhabit; a recognition that climate change and the impact of digital communication are 'here and now' (Boykoff 2020).

The first part of the text will present the interrelation of these hypotheses. Next, the second part of the article will introduce the main theoretical approaches within communication and media studies that have dealt with the environment more generally and their interpretation of the Anthropocene. The discussion will organize their approaches to media and the environment. A literature review shows that new concepts have been developed to explain the close relationship between technology, media and nature. There is a need to organize consolidated research efforts with new theoretical conceptions and, hopefully, this work will add some references to previous contributions that established the state of the art of media, communication and environment as an object of study. The paper finishes with a few remarks on making sense of the Anthropocene from the perspective of communication science and media studies and links this theoretical framework with possible future lines of research.

2. Studying (and Living in) Media and the Anthropocene

This paper is based on two key assumptions: One is the idea that the human and the natural cannot be separated, and the other is the premise that there is no life outside media (Deuze 2012). Putting it another way, one cannot live a life apart from nature nor outside media. Thus, studying the Anthropocene and making sense of it will go hand in hand with a reflection on our relationship with media.

Studying the Anthropocene requires a very broad and multi-disciplinary approach, and cross-disciplinary discussion is encouraged (Brondizio et al. 2016; Herrmann-Pillath 2018; Lövbrand et al. 2015; Luke 2017; Malhi 2017; Strydom 2016; Tschirhart and Bloomfield 2020; Zalasiewicz et al. 2021). This is a similar situation compared to communication science if we consider current debates on the topic (Waisbord 2019). Even if "communication science and media studies comprise a wide-ranging, heterogeneous and not necessarily consistent body of work" (McQuail and Deuze 2020, p. 19), as a field, it helps to establish connections between disciplines and concepts from different perspectives. This means that the field is both interdisciplinary and, at the same time, facilitates interdisciplinary approaches,

analogous to what happens when researching the Anthropocene. In fact, as we will see next, there are common features and concerns that illustrate their interrelation.

Following McQuail and Deuze (2020, p. 6), the study of media and mass communication is based on some assumptions:

"First, media and mass communication are pervasive and ubiquitous.

Secondly, media and mass communication act upon (and are acted upon by) people and their social environments.

Thirdly, media and mass communication change both the environment and the person. Fourthly, the primary goals of media and mass communication researchers are to demonstrate the various elements (. . .), roles, influences and effects of media and mass communication, and, if possible, explain how they come about."

There are comparable premises in the hypothesis of the Anthropocene, at least when it considers the pervasiveness of the human impact on planetary ecosystems, its irreversibility, the role of human agency in the modulation of its influence in the environment and the ambivalence in the Anthropocene that also applies to our media, since they are close and intimate, but daunting at the same time.

From a broader perspective, if we consider the central concerns of environmental studies and communication science, there are striking parallels between them; for instance, the crisis associated with both digital media and climate change. Philips and Milner (2021) point out some trends that could provide worthwhile comparisons. First, there is the trend towards extreme temperatures just as there is increasing polarization in the information ecosystem. Both are consequences of the aforementioned crises. Second, the idea of information disorder and pollution are two concepts that invite further analysis, attending, for instance, to how the media landscape is inundated with disinformation or misinformation. Third, there is the impact of these crises at local, national and global levels disregarding borders, communities or contexts.

It makes sense to think about these interrelations, since both the media and the Anthropocene invite us to think about our protagonist role in an uncertain context that is being shaped by invisible phenomena, such as climate change and media effects. Moreover, the discussion of media life in the Anthropocene faces the contradiction of the supposed human influence that has transformed the Earth's ecosystems and the powerlessness of not knowing to what extent our activities are involved in this transformation, matching the ambivalence of the presumed media presence and influence in people's lives. Consequently, debates on human and non-human agency are gaining interest in both fields.

At the same time, researching the media in the Anthropocene acknowledges the importance of understanding the planet through technological measurements, but also the role of mediated practices as frames of knowledge of our present environment (Parikka 2016). Not only is the information on environmental issues more frequent in news outlets, but we are also surrounded by constant recreations of nature on our screens (Opel 2015). The media inform us about our environment, and they also make meaning of it. Consequently, the study of the environment from communication and media studies will become key in the future, considering that media technology is central to our lives and that communication shapes access to information and scientific knowledge about climate change. The next section will present the most important research traditions that have dealt with the broader field of environmental studies.

3. Communication, Media Studies and the Environment

Communication science and media studies have dealt extensively with current concepts and topics of environmental studies (Cantrill 2015; Corbett 2006). For instance, Pezzullo and Cox (2018) give evidence that communication is a key element of public participation in decisions about the environment and can help address and analyze climate change (Boykoff et al. 2015). Likewise, Castree et al. (2018) mention research on representations and reality, environment and news framing, environment and popular culture or environmental fiction as possible areas of inquiry. From a different approach,

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Peters (2009) points to the status of humans on the planet and communication as the term that best considers our relationship with other creatures as well as with smart technologies and nonliving agents. Hartley et al. (2021) introduce the idea of the digital semioshpere as a complex system at the planetary scale that incorporates the biosphere and digital technologies. These are some examples of the wide-ranging research topics and initiatives that are influenced by the broad field of communication science and media studies. For a further disciplinary overview, see Christensen and Nilsson (2018), Parikka (2016) and Shriver-Rice and Vaughan (2020). For the purpose of this article, the following section will go through some traditions that have discussed climate change and the Anthropocene under the umbrella of communication and media studies.

3.1. Environmental Communication

Environmental communication is the approach that dominates social science studies of the environment and media. For decades, especially since the 1980s, this discipline has studied narrative frames of environmental communication and climate change awareness, but also patterns of environmental discourse and media coverage of environmental issues or public opinion, among others (Cox and Depoe 2015; Peeples 2015). There is an understanding of communication as symbolic action based on the premise that our behaviors and beliefs about the environment are constructed through communication and that the public sphere is a space with competing voices that engage each other about environmental matters (Pezzullo and Cox 2018). Therefore, media contents provide meaning to climate information and guide—at different levels, with varied effects—societies' perceptions and behaviors in relation to the environment and climate change (Boykoff 2011).

Rice et al. (2012) present some of the most important research centers, programs and resources within environmental communication and media. In the last decade, these efforts have grown even more with the consolidation of a specific division within the International Communication Association, the growth of the International Environmental Communication Association and published work in journals (Applied Environmental Education and Communication or Environmental Communication, among others) and monographs (Pezzullo and Cox 2018).

Research on environmental communication, usually applying quantitative and mixed methodologies, has shown that media messages and news items have been a primary source for citizens that want to access information about environmental science and policy. Within environmental communication, research on environmental journalism focuses on the practice of reporting and informing scientific data related to climate change and public policy. The media represents the main source of information and knowledge for the general public about the Earth's natural ecosystems and environmental risk, and journalism (in its various forms) is a key practice for that matter (Sachsman and Valenti 2020). However, important challenges (industrial transformations, technological shifts, professional precarity, new narrative forms that defy traditional ways of reporting, etc.) that affect journalism are also inviting new ways of approaching issues related to sources of information, the profile of environmental reporters or the temporalities of long-term climate change and imminent climate events (Bødker and Morris 2021).

With regard to the Anthropocene, Sklair (2018, 2021) has coordinated the most comprehensive project on how media worldwide report the Anthropocene: The Anthropocene Media Project. Data from over a thousand news sources from around a hundred countries between 2002 and 2017 show that science reporting is only a part of the coverage: Hundreds of articles reviewed events in the arts that used references to the Anthropocene. In general, the messages analyzed focus on the opportunities of the 'good Anthropocene' and leave the risks and threats of climate change and human impact in the background. Environmental communication, which understands media as representational—as Christensen and Nilsson (2018) put it—is concerned with making sense of the Anthropocene, but also aims at constructing better science communication, avoiding mistrust or problems related

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to the influence of media in public opinion or scientific knowledge (Lidskog et al. 2020; Palsson et al. 2013).

3.2. Ecocriticism and Environmental Humanities

While environmental communication contextualizes media texts in a process of communication and evaluates the role of different agents involved in the efficacy of messages, humanities-oriented ecocriticism is a heterogeneous approach that focuses on artistic, literary and non-scientific representations of the relationship between the human and the non-human (Bruhn 2020). Like environmental communication, it is more interested in media-as-representation, but it is based on qualitative, textual analysis and interpretation. Its research is influenced by film studies and art history, and it grows hand in hand with the rise of environmental issues portrayed in cinema, television and other mainstream media. This approach is interested in stories about nature, but also in how cinema and media build a wider sense of the environment (Ivankhiv 2013; Peterson 2019). Therefore, ecocriticism is focused on how cultural texts both express and shape worldviews and perceptions of nature and the environment. Ecocriticism points to the need to address the properties of media that shape human understanding, socialization and experience. However, Kalaidjian (2017) warns against the unwanted effects of the media spectacle if environmental aesthetics only describe destruction on screen, without aiming at the affective response of audiences that could potentially lead to activism. Other initiatives have questioned the role of art and aesthetics and its encounters with politics, ecology or technology (Davis and Turpin 2015; Jagodzinski 2018; Paterson et al. 2020).

For Bruhn (2020), ecocriticism covers representations of environmental crisis in different media, from cinema to videogames, and enables a comparative approach to issues affecting content and narratives in order to better understand the mediation of ecological crises. Similarly, in Cubitt's (2005, 2017) terms, ecomedia is interested in the representation of the environment in popular culture and how these texts, as audiovisual narratives and formal aesthetics, build an image of the natural world and our relationship with it. This approach underlines the importance of studying media texts, but also their technical and cultural contexts. Rust et al. (2016) put forward frames (visual texts), flow (broadcast media) and convergence (new media) as keywords that organize the study of ecomedia, the work of thinking about forms of media that facilitate ecological discussion, expanding ecocriticism beyond environmentally themed content only. Others, such as López (2020), apply the concept to the wider field of education, stressing opportunities for sustainability literacy.

Within this approach, there is extensive work on ecofilm criticism or ecocinema as a branch of ecocriticism that critically approaches cinema and the way it is culturally and materially embedded in ecological systems and contexts. It does so not by necessarily aiming at an ideal or optimized scientific communication, but rather by facilitating spaces for debate on environmental issues, while also drawing attention to material implications (Rust et al. 2013).

3.3. Environmental Media Management

Similarly concerned with these implications, environmental media management is a field of research that focuses on media industries' environmental footprint and how media organization and management influence and shape the media's impact on the planet (Kääpä 2018). The media produce meaningful texts and shape discourses, but in the process of producing and distributing content, they also create electronic waste (Vaughan 2019). Maxwell and Miller (2012) suggest that this challenge needs to be met by greening the media: Critically evaluating cultural labor, sustainable media policies oriented towards sustainability and green production cultures, among other solutions. This focus on material aspects offers the opportunity for wider research. Audiovisual media and digital technologies can be read from the point of view of infrastructures: Considering objects and materials in different settings, but also the often-invisible "bodily acts" that support them. For Parks (2015), a theory of media infrastructures "would also need to draw attention to

the biophysical resources required to make those acts possible, the sites, materials, and objects that have been organized to move signals throughout the world" (p. 370).

Murdoch (2018) warns that there is a "need to intervene in debates around communication technologies in the formative stages of conception and design, asking questions about the materials they are made of, the energy they will consume, the uses they allow and deny, and the social and environmental costs of their production and disposal" (p. 366) and puts forward a moral economy of media that is based on an awareness of the systems involved and the consequences that its management has at different levels. Kannengießer and McCurdy (2020) add, from the point of view of the mediatization theory (which considers the impact of media and communication in the process of (re)constructing our social world), a reflection of the socio-ecological effects of the media environment in the natural environment.

The impact of digital technologies on our socio-natural relations is one of the issues to deal with in the future (Arias-Maldonado 2015a). If we accept the socio-natural entanglement of the Anthropocene and the implication of humans in the management of the system that shapes these interactions, technology will be a key element in making sense of the situation. "Hybridization, fungible capital, ecological restoration, technological interventions, even climate engineering—these are the instruments that the control of socionatural relations in the Anthropocene seems to demand" (Arias-Maldonado 2015b, p. 20). Taffel (2019) describes these mixtures and hybridizations of humans, non-human organisms and other nonliving actors 'assemblages', and states that there is an open debate on how to design and construct them with ecological and social justice in mind. In that sense, environmental media management and the concept of *green media* focus on their environmental impact and asks for conscious design of media technologies and management of the cultures of obsolescence and big data ecologies (Crawford 2021; Hogan 2018; Maxwell and Miller 2012; Tischleder and Wasserman 2015).

3.4. Elemental Media

The approach from elemental media allows for a contextual analysis that includes historical processes that have composed the emergence of media infrastructures worldwide and the reasons that explain why these infrastructures were installed in these settings—and what consequences they have had on their environments and communities. In that sense, media infrastructure not only theorizes these issues but also visits and explores these sites (Parks 2015; Starosielski 2015; Starosielski and Parks 2015). Starosielski (2019) frames elemental analysis as all research efforts on "media's material and conditioning substrates": Infrastructure, core elements of hardware, platform technologies, etc. It is a broad framing of both the environment and the media, which invites one to look at elements not only as objects or things, but as dynamic, relational processes that compose the media and the environment. This means, for instance, viewing the internet not as the sum of networks, cables and servers under the control of companies, but also as a complex phenomenon affected by water and water's regulation. Similarly, Parikka's (2015) theorization of a 'geology of media' is "a call for a further materialization of media not only as media but as that bit which it consists of: the list of the geophysical elements that give us digital culture" (p. 139); that is, to acknowledge the existence of the environment as mediated through technoscientific systems that become more and more integrated with the planetary ecosystems (Hartley et al. 2021; Velkova 2019). Jue (2018), too, argues that natural media, like the ocean, are always interrelated with digital media and pays attention to the distinct environmental situations that determine the media.

This opens a line of research that considers the environment as media. Peters (2015) widens the interpretation of media beyond human-centered technologies and into the broader environment and considers earth, water, fire, and air as media in certain contexts. "Media are more than the audiovisual and print institutions that strive to fill our empty seconds with programming and advertising stimulus; they are our condition, our fate, and our challenge" (Peters 2015, p. 52).

3.5. Media Ecology

Inspired by the seminal work of McLuhan (1964), media ecology is the study of media as environments, understood as a complex system that affects the people who use it and the analysis of media as species who live together and interact with each other. The media ecosystem is a network of technologies, consumers, producers and social agents. It is interested in media ecosystems and offers new theoretical conversations between disciplines (Scolari 2012). Media ecology approaches media development from an evolutionary perspective (Scolari 2013), calling attention to its history not as a linear series of technologies, but as an interpretation of intermedia relationships through different times and scales. Furthermore, nature has inspired metaphors and visualizations of the ways media ecosystems function (Van Dijck 2020) or how to navigate a media-saturated environment (Philips and Milner 2021). The focus is not on environmental issues specifically, but rather on media use and industrial logic and its parallelism to natural ecosystems.

Hildebrand and Vacker's (2019) idea of the 'media(s)cene' turns to art and theorizes media evolution at different levels, from ego-media to exo-media, in order to reflect on the character of contemporary technologies that shape our ways of living in the world.

Similarly, Boczkowski and Mitchelstein (2021) describe the dynamics and patterns of the digital environment, which, interconnected with urban and natural environments, is reshaping every aspect of our lives.

3.6. Environmental Media Studies

Environmental media study is a recent subfield of media studies that explores the interrelation of environmental and social processes. Similar to ecocriticism, it aims at providing recommendations for action and is also concerned with the material aspects of digital technologies. It encourages interdisciplinary dialogues, but compared to other theoretical frameworks, environmental media studies adopt a strict approach to the Anthropocene, which it takes as a given and not as an object of debate. Moreover, it understands media in a limited way: Instead of widening its definition, environmental media studies address the overlapping spheres of environmental issues and the production and use of new media and bridge social sciences and digital humanities. Following Shriver-Rice and Vaughan (2020), there are five premises to the definition of environmental media studies: A focus on media as digital screen culture, the avoidance of terms that take media as anything that mediates (like 'elemental media'), an orientation towards action and policy recommendations, the acknowledgement of the material aspects of digital technology and the belief that it is humanity that mediates what technology is rather the other way round.

4. Media Theories for the Anthropocene

Global transformations and climate change support the hypothesis of the Anthropocene, which points to a meaningful shift in the relationship between humans and nature. As Arias-Maldonado suggests "the Anthropocene has confirmed the plausibility of a particular view of nature and the corresponding relations between the social and the natural. Even if the notion is finally not recognized by geologists or fails to capture the public imagination, the reality that it describes will not fade away" (Arias-Maldonado 2015a, p. 76). Moreover, this reality will be necessarily intertwined with media and technology. Within media theory, many have argued that global change and the new socio-natural relations are heavily mediated. Allenby (2008), for instance, sees the Anthropocene as media, since the world "has evolved to levels of complexity and constant change that combine physical and information systems in ways that we as a species have not had to contemplate, or manage, or, least of all, design intentionally, and we certainly don't understand" (p. 136). Others prefer to avoid the term but point to the same entanglements of media technology and technocultural practices in a complex situation where different spaces and temporalities converge in human and non-human assemblages. Parikka (2016) reviews alternative terms that question the notion and the Anthropocene from critical points of view, feminist or postcolonial studies, such as the Capitalocene (Moore 2015) or the Chthulucene

(Haraway 2015). Chwalczyk (2020) has found more than eighty alternatives to the concept, some of them acknowledging the key role of technology, media or communication. Next, we will introduce complementary conceptualizations of the Anthropocene that stress the role of media or technology in contemporary socio-natural relations. Many of them are aligned with more than one of the approaches previously presented, which responds to the call for interdisciplinarity in the study of the Anthropocene.

Most of the conceptualizations of media in the Anthropocene tend to look at the central role of technology in the new epoch and the mediated actions of humans. For instance, Gurevich (2014) argues that "we are entering a *mediacene*; the rationalisation of the earth's systems under the auspices of digital media's simulative effects" (p. 103) and points to the tensions between the computer-mediated representations of the earth, its ecology and the cultural responses to climate change. Parikka's (2015) concept of *medianatures* points to the assemblages that organize the planet and build global infrastructures. The term "picks up on the co-defining continuum of media and nature, where technical media plays an essential part in perceiving, analyzing, and mobilizing the earth, the air, and more, while technical media itself is based on the usefulness of many chemical and earth elements" (Parikka 2016, p. 285). Fast and colleagues (Fast et al. 2019) turn to the theoretical framework of mediatization and the social construction of technology and introduce the concept of *geomedia technologies*, a set of devices, hardware and apps, dependent on location and places that are gaining relevance since they increasingly influence the relationship between geographies, technology and social transformation.

For Haff (2017), communication is an important part of the *technosphere* (Haff 2014), the global technological system that upholds the Anthropocene. Following his concept, the Anthropocene is a product of human activities and of technology and it is important to consider their shared dynamics, which strengthen the idea of humans "as parts of, rather than simply creators and users of, modern technology" (Haff 2014, p. 135). Herrmann-Pillath (2018) claims that the emergence of these trends requires a new scientific discipline: The technosphere would be to the Anthropocene what biology is to the biosphere.

Donges and colleagues discuss Haff's approach and emphasize the interplay of social agents, human agency and entities of the technosphere. "Haff's concept of the technosphere shifts the focus from social relations to relations between humans and technology, a theme that is explored from other perspectives in the field of science and technology studies" (Donges et al. 2017, p. 3). For them, emergent logics of the technosphere do not necessarily entail a loss of human agency.

Cera (2017) suggests the concept of the *technocene* as a term that encompasses the character of the Anthropocene. It is based on the acknowledgement of technology as the basic unit of this epoch and the actions of the post-human subject, the human who successfully adapted to the new and pervasive technological environment.

These conceptual frameworks and research lines put forward distinct approaches to the complex analysis of the relationship between society, culture and nature. There are important differences in their definition of media, their interpretation of human agency or the general approach to technology and the environment, but hopefully they can contribute to nuanced research on our media life in the Anthropocene.

5. Conclusions

The Anthropocene is a discussed hypothesis. However, it has received unusual attention from varied academic disciplines, and it is important to make sense of it in a moment of global change in our relations with nature. One might ask, in line with Hackett (2018), what can communication and media scholars do? This text suggests that in order to research the Anthropocene, it is necessary to pay attention to communication and the media: They are key to the analysis of the mediatization processes that shape today's realities.

Communication science and media studies are well equipped for the interdisciplinary analysis that the Anthropocene demands. On the one hand, communication and media

texts are fundamental in the process of raising awareness and calling for public action. On the other hand, media studies help with the challenge of dealing with the technological implications of our lives in the Anthropocene through the critical analysis of media management and the hybridization of technology, nature and human life.

This article has introduced relevant theoretical approaches to the interrelation between media and the environment. There are important differences in how these concepts can be defined and how they are related, but as a field of knowledge, communication and media studies offer a timely approach to the interdisciplinary debate on the human impact on planetary ecosystems.

It seems, after all, that communication science and the Anthropocene share concerns about the role of media in the construction of reality, the ambivalent nature of technologies, the challenges of science communication or its influence on society. Their interrelation invites further reflection as the planet and media become more our own, but at the same time, unfamiliar: "The exposing (or bringing forth) of reality in media precipitates an integration between humanity, nature and technologies. The ongoing fusion of information and organisms, of man and machine, and of media and life amplifies and accelerates a distinct notion of uncanniness in our daily perception of the world around us" (Deuze 2012, p. 26). Additionally, "we have made the planet our own and, at the same time, it is increasingly strange to us" (Arias-Maldonado 2018, p. 218). There is no straightforward answer to the challenges of the Anthropocene, but communication and media studies are versatile enough to embrace its ambiguity and encourage further interdisciplinary dialogue.

Of course, there are conflicting approaches to the role of technology and the environment. For example, Boehnert (2018) identifies two perspectives: One that recognizes the alignment of design, technology and capitalism for climate sustainability, and a critical position that urges politics of science and technology to focus on cultural and social issues. Similarly, this article has reviewed approaches that focus on representational aspects of the media (environmental communication, environmental humanities and ecomedia) while others examine its material dimensions (elemental media). Some, such as Peters (2015), support a broad understanding of media, while others, such as Shriver-Rice and Vaughan (2020), prefer a more restricted definition.

However, there is a growing interest in exploring the Anthropocene from new perspectives related to communication and media studies. For instance, research on information infrastructure (Dedeoglu and Ekmekcioglu 2020), social media and the Anthropocene (Gärdebo et al. 2017), projects on children's media use (Livingstone and Blum-Ross 2020) and their relationship with technology in the context of the Anthropocene (Kraftl et al. 2020) or, more broadly, studying the narrative frames as key for the construction of possible representations of the Anthropocene (Lidskog and Waterton 2018; Simon 2020), be them dystopian or—maybe more desirably—hopeful and utopian (Arias-Maldonado 2019). These future research initiatives, together with the rest of the efforts outlined in this article, acknowledge the importance of communication science and media studies in the challenge of not only making sense, but also making meaning of the Anthropocene.

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