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Green(ing) Media (Studies)

Judith Keilbach & Michał Pabiś-Orzeszyna

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> 'Is it morally wrong to take a stone and grind it into powder, merely for one's own amusement?' – M.A. Warren

Concerns about the climate crisis are starting to affect research agendas within media studies. Since Adrian Ivakhiv's call for 'green film criticism,' literature on eco-cinema is rapidly growing.[1] Scholars are not only analysing films about environmental topics and discussing how they help foster ecological thinking,[2] they are also drawing attention to the environmental footprint of media production and distribution. Various authors are pointing out that every media product (content or device) is based on the extraction of raw material and creates an enormous amount of waste, thereby emphasising the finite nature of Earth's resources.[3] While there is no doubt that these publications are extremely valuable, the state of our planet leaves us wondering if this is all media scholars can do. Given the climate emergency, we both consider the transition of media studies towards a more environmentally aware discipline imperative.

At the same time the media industry has started to acknowledge its carbon footprint and is launching various green initiatives in the Global North. This might create the impression of unified efforts to make the industry environmentally sustainable, which in the end will help to slow down global warming and stop the ecological devastation of the planet. However, conceptual understandings of the current situation and the objectives of and approaches to climate action differ significantly. Together with a general eco-critical reorientation of our discipline these disagreements pose a variety of challenges to media studies that we consider extremely productive.

Educational challenge

Environmentally engaged media studies calls for a radical reorientation of our curriculum. This includes not only the discussion of films, television series, and games about climate change, ecology, or the future of the planet; such a reorientation needs to go much further – for example by addressing the environmental footprint of the media products that we study, and of their distribution and consumption. Or by adding topics such as degrowth, environmental justice, and activism to our teaching agendas, by critically analysing discourses of innovation, or by scrutinising our 'collective desire for spectacle' that has an enormous ecological impact, as Hunter Vaughan argues.[4]

Integrating ecocritical thinking in the curriculum will be challenging. Since we are not trained in calculating CO2 emissions or in measuring the energy consumption of our media devices, we need to resort to natural and environmental sciences to better understand the footprint of the objects that we have studied for a long time from cultural or aesthetic perspectives.

With our humanities perspectives and approaches we can add great value to interdisciplinary collaboration: our knowledge about storytelling, visualisation, and immersive worlds enables us to contribute, for example, to climate communication, and our aesthetic and critical socio-political perspectives qualifies us to scrutinise technological solutionism. Furthermore, media scholars are theoretically and methodologically perfectly equipped to investigate the role that media play in environmental research – think for example of monitoring and remote sensing technologies, machine learning models, etc. – and can offer critical analyses of their biases and shortcomings.

Analytical challenge

The environmental footprint of the media is difficult to calculate and data about the consumption of energy, fuel, and other raw materials, about the amount of waste or covered distances, are usually not accessible. This problem concerns the (recent or historical) production of films and television programmes as well as the impact of their distribution and, more generally, of the use of media devices and technologies that allow us to connect on social media, to mine bitcoins, or to create virtual worlds.

But even if such data are available, they pose a challenge. Such calculations of emission are released by or in collaboration with the media industry

that in this way showcases its green ambition or tries to prove that the production and consumption of media is ecologically unproblematic. As environmental media studies scholars we need to resort to methods that allow us to critically question studies which, for example, claim that data centers are carbon neutral and video streaming has therefore almost no environmental impact. Although we do not have exact numbers, we can point out that these calculations ignore that the industry is offshoring environmental damage (think for example of the extraction of raw materials and supply chains for renewable energy technologies) and delegating energy costs to end-users. Or that the consumption of water, land use, and the loss of biodiversity are not taken into account.

At the same time, it is important to be critical of the idea to quantify environmental sustainability. In the end, quantification and datafication of best practices and green policies spotlight their economic value and eventually lead to a rebound effect. CO2 calculators translate, for example, the use of renewable energy or the reduction of air and car travel into savings, implying that this accumulated capital can be reinvested. Sustainable technologies unlock the surplus value and increase the production and consumption of new goods and services. They sustain GDP growth – not the Earth. This leaves media studies scholars with several analytical challenges. It seems that some of them can only be met through interdisciplinary collaboration (with environmental sciences and economics). For others we can resort to critical methods that are part and parcel of the humanities.

Conceptual challenge

Making media studies more environmentally aware challenges us to become familiar with the plurality of eco-critical thinking and the diverging definitions of the current situation which each imply different solutions. Ecomodernists, for example, are convinced that our planet can be rescued by investing in technological innovations (smart cities, nuclear power, synthetic food, etc.). They believe in economic growth that is environmentally sustainable and aim at decoupling human well-being from the consumption of natural resources.[5] In contrast, scholars of political ecology and environmental justice emphasise that the declining quality of the environment (pollution, global warming, loss of biodiversity) is directly connected to the idea of eco-

nomic growth as such. Therefore, they argue that we need to reduce production and consumption and conclude that degrowth is the only possibility to prevent extinction of human and nonhuman beings.[6]

Instead of only being ecologically aware, we need to get involved with these debates. By knowing the variety of environmental approaches, media studies will be able to analyse not only the ecocritical attitudes of movies about the environment, but also the proliferating green initiatives of the media industry. Familiarity with the conceptual differences will allow us to scrutinise, for example, the road maps of industry consortia or the sustainability goals of streaming providers who claim that climate neutral media production and distribution are possible.[7] Their aim to decouple the media sector from non-renewable resources and their affinity to green growth is obvious. After all, the industry lives on overproduction that allows for failure before scoring a hit movie or television show, and that affords its consumers impressive spectacles, endless choices, and unlimited access to media content 'anywhere, anytime'.

Although the degrowth way of thinking goes against the industry's interest, we consider it a very useful approach for media studies since it draws attention to low-carbon projects, such as the Small File Media Festival founded by Laura Marks or second-hand cinema as mentioned by Nadia Bozak,[8] and triggers also our self-reflection as media users and scholars. Overall, insight into different ecocritical concepts will open up new perspectives on our research objects and enable us to redefine critical approaches within the field of media studies.

Socio-political challenge

A crucial promise of decoupling the economy from non-renewable resources is the continuation of economic growth. This thinking goes hand in hand with ideas about dematerialisation and acceleration: according to ecomodernists, the aspiration of turning away from non-renewable materials propels innovations which in the end will ensure a growth of productivity and efficiency. Such a model is also pivotal to the politics of creative economies, including the field of (green) media production. Working, for example, with LED video walls and other virtual production technologies minimises the volume of transportation, the component that usually causes the largest

amount of CO2 emission in the film sector. Such technologies safeguard further investments in green innovations and promises thereby a continuation of economic growth. At the same time, it accelerates the media industry's content output as well as labour turnover. New forms of work, new creative labour practices, new infrastructures, and new aesthetics will emerge.

Such imaginations of the productive power of dematerialisation are intriguing, as is the repression of the fact that dematerialisation in the media industry requires the consumption of materials, such as a cable network, computers, and server farms for remote working. Furthermore, it is important to point out labour conditions within an accelerating media industry. We doubt that they will improve due to the implementation of new, virtual production practices.

This pursuit of economic growth, which 'greening' (media) industry initiatives comprise, is deeply political, and media studies must not shy away from an explicit articulation. It accords with capitalist ideology which is a source of the unequal distribution of wealth and perpetuates that the reorganisation of labour processes guarantees surplus value.

Generally, it cannot be emphasised enough that the industry's assertions of de-carbonisation and dematerialisation presuppose offshoring – of extraction, labour, and waste. To tackle the socio-political challenges that green media initiatives pose, we need to resist the rhetoric of dematerialisation and radically open the stage for the diversity of social actors. Empowering subaltern groups is one of the most urgent tasks of politically and environmentally engaged media studies.

Spatial challenge

It is the media industry in the Global North that launches green initiatives, whereas the Global South is much more affected by ecological destruction. This environmentalism of the rich, who deploy capital to prevent climate legislation, needs to be linked to the neo-colonial ways that the Global North handles the degradation of the planet: by offshoring the damage (mining for raw materials, waste) and by planting trees to offset its carbon consumption.

Being aware of environmental injustice challenges media studies scholars to shift their research focus; eventually this might even help to de-Westernise the discipline. After all, countries in parts of the world which suffer most from pollution and are considered to be highly vulnerable to climate change

also have their own media industries. Paying attention to climate justice might help us to start thinking about topics and questions like: How do film industries in Nigeria and India react to the climate crisis? Are they addressing the topic in their films? Do they implement 'best production practices' as the sector in Europe and North America does? Does their consumption of energy and material resources differ because film production takes place under different circumstances from the Global North?

Being aware of global inequalities and environmental injustice implies not only to explore media industries in other countries, but to scrutinise the colonial legacy that structures today's extractivism, infrastructures, and power imbalances within the global mediascape (and media studies!). A decolonial approach demands of the Global North to stop talking and start listening – to practitioners and scholars from other parts of the world. At best this will lead to more insights and knowledge on how to save resources and treat the planet more carefully.

Temporal challenge

Climate science points to different temporalities that challenge climate action. Climate change, the decrease of biodiversity, and the deterioration of the planet occur in a timeframe that does not provide for immediate experience or direct observation. The latency and slow change beyond personal experience suggests that there is still enough time to prevent climate disaster which profoundly contradicts the urgency for taking action.

We are wondering how 'the media' can contribute to meet this temporal challenge. Given the power of imagination and importance of narratives they are able to emphasise the emergency on a variety of platforms and in diverse forms and genres. This brings us, on the one hand, back to media content and the question that we mentioned in the beginning: How can films, games, or television shows foster ecological thinking, facilitate communication between diverse actors, and stimulate climate action?

The necessity to act now touches also on the understanding of our academic discipline. If everything has to be done to shake things up, should we then declare climate emergency, and consequently get involved in climate communication or even activism? We think that we should.

Challenging media studies (self-reflexion)

Ultimately, environmentally aware media studies needs to inquire in what ways it adds to the destruction of the planet. From an ecocritical perspective, questions emerge such as: Do we, as critics and connoisseurs, have a share in the overproduction of media content? Do we encourage wasteful media consumption? And how does academia overall contribute to extractivism and the use of scarce resources?

One way to meet this challenge is a reorientation within the discipline, as discussed above. We should enforce interdisciplinary collaboration, de-colonise, and get involved in climate communication. And let's discuss if we need to start addressing which kind of technologies and content we want to spend the planet's decreasing resources on.

There are already intriguing suggestions on how to de-carbonise academia: Anne Pasek, Emily Roehl, and Caleb Wellum wrote a white paper on how to organise low-carbon conferences and research exchanges, and Laura Marks offers useful tips on how to mitigate the carbon footprint of streaming.[9] Let's bear the challenges and participate in their endeavour!

Authors

Judith Keilbach works in the Media and Culture Studies Department at Utrecht University. Her research focuses on the transformation of television and media technologies and infrastructures. She is currently working on a project about transnational media events and is interested in the relation of media and sustainability with a focus on production cultures. Together with Michał Pabiś-Orzeszyna she founded the Sustainable Media workgroup of NECS.

Michał Pabiś-Orzeszyna works in the Department of Film and Audiovisual Media at the University of Łódź. His current research projects concern the following areas: production and reception of immersive technology, Central European animated film production, and the impact of film culture on the natural environment. Since 2016 he has been a member of the steering committee of NECS. Since 2020 he has been a member of the competition committee of the Lodz Film Fund.

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Notes

[1] Ivakhiv 2008.

[2] See for example Cubitt 2005, Willoquet-Maricondi 2010, Rust et al 2012, Weik von Mossner 2014, Brereton 2015.

[3] See for example Maxwell & Miller 2012, Kooijman 2013, Cubitt 2017.

[4] Vaughan 2019.

[5] See for example Nordhaus & Shellenberger 2007.

[6] See for example Kallis 2018.

[7] See for example Albert 2020.

[8] Bozak 2012.

[9] Pasek, Roehl & Wellum 2020, Marks 2020.