

## STATES OF MEDIA+ENVIRONMENT

## Correction: Streaming Media's Environmental Impact

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### Correction for Streaming Media's Environmental Impact

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In Table 1 of the published article, due to a transcription error, one line in the streaming carbon footprint calculator is mistaken. It should read “× 0.0007 metric tons of CO<sub>2</sub> (Environmental Protection Agency 2020),” not “× 0.007 metric tons of CO<sub>2</sub> (Environmental Protection Agency 2020).” While correcting this mistake, we are also adding a calculation in kilograms of CO<sub>2</sub>e, to facilitate smaller calculations, and noting that the carbon footprint is measured in kilograms or metric tons of CO<sub>2</sub> and other greenhouse gases.

The article has been corrected accordingly.

The [corrected Table 1](#) is shown below.

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- <sup>a</sup> Laura U. Marks' most recent book is *Hanan al-Cinema: Affections for the Moving Image* (MIT, 2015). She programs experimental media art for venues around the world and is the founder of the Small File Media Festival and a founding member of the Substantial Motion Research Network. Marks is Grant Strate Professor in the School for the Contemporary Arts at Simon Fraser University.
- <sup>b</sup> Joseph Clark is a lecturer in film studies at Simon Fraser University. His research and teaching focus on archival and non-theatrical media, including newsreels, home movies, and sponsored film. He is the author of *News Parade: The American Newsreel and the World as Spectacle* (University of Minnesota Press, 2020). His new research examines “extractive cinemas” in Canada's forests and the ways in which industrial and sponsored films have reshaped the landscape and human relationships with the natural world.
- <sup>c</sup> Jason Livingston is a media artist, programmer, and writer. His award-winning work has screened widely, including Rotterdam Film Festival; Anthology Film Archives, New York; the Austrian Museum; and the Vancouver Art Gallery. He is pursuing a practice-based PhD as a Presidential Fellow with the Department of Media Study at the University at Buffalo. He currently serves on the Board of Trustees with the Flaherty Seminar.
- <sup>d</sup> Scholar and artist Denise Oleksijczuk's training in art history and the fine arts has allowed her to fuse historical analysis and visual observation. Her book *The First Panoramas: Visions of British Imperialism* offers a subtle analysis of panorama paintings' influential forms of imperialist storytelling and won the Historians of British Art Book Prize. Her current research explores art and activism, the environmental humanities, and indigenous ecological philosophy. She is associate professor of Art, Performance and Cinema Studies at Simon Fraser University, Vancouver.
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Table 1: Calculating the carbon footprint of a given streaming program

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Length of the streaming video in hours
× GB per hour for a given resolution (Summerson 2018)
× gigabytes per hour for a given resolution (Summerson 2018):
480 pixels: ~792 MB/hour
720p: ~1.3 GB/hour
1080p: ~1.9-2.55 GB/hour
1440p: ~2.8 GB/hour
4K: ~3.5-7 GB/hour
× energy intensity: 4.91 kWh/GB (see above)
× number of unique viewers
× 0.707 kgCO <sub>2</sub> e/kWh ( <a href="#">Environmental Protection Agency 2020</a> )
= carbon footprint in kilograms of CO <sub>2</sub> e (CO <sub>2</sub> and other greenhouse gases).
For larger volumes use:
× 0.0007 metric tons CO <sub>2</sub> e/kWh ( <a href="#">Environmental Protection Agency 2020</a> )
= carbon footprint in metric tons of CO <sub>2</sub> e

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