ABSTRACT

In recent decades, despite glaring and increasing evidence of climate change, much of this knowledge remains abstruse, cumbersomely documented, and opaquely presented, making engagement with it by “non-scientists” difficult. Perhaps this is the reason why a large segment of the general population remains convinced that human beings have not caused the observed 20th and 21st century climate change. There exists, therefore, an exciting and necessary opportunity for scientists to collaborate with artists.

In school, we learn that the scientific method begins with a hypothesis, progresses through research and analysis, and concludes with a result. The design process, in contrast, begins with human engagement and inquiry, progresses through ideation and prototyping, and concludes with a refined artifact. Perhaps the revolution we need to address climate change begins by making the human engagement of art-making an integral part of the scientific method. There exists real potential for art and design to dramatically improve the way climate research is conducted and communicated.

BIO

Mika is a trained climate scientist, having completed her PhD in 2012 at the University of California, Irvine with Dr. James Randerson and Dr. Charles Zender. While at Irvine, Dr. Tosca researched the interconnectivity of the climate system with landscape wildfires and their particulate emissions using Earth system models. She continued this work as a postdoctoral scholar at the Jet Propulsion Laboratory in Pasadena, CA, under the advisement of Dr. David Diner. There, she used multiple satellite sensors to research the interactions between climate, clouds, and fires, even traveling as far as Namibia in 2016 to observe the complex relationships between wildfire smoke and cloud formation.

In 2017 she took a position as an Assistant Professor at the School of the Art Institute of Chicago, and is now investigating whether artists and designers can help scientists conduct climate science more effectively. She has been invited to speak on the role of scientists, artists, and citizens in communicating climate change, and continues to be vocal about the urgency of addressing the climate crisis. Mika is a self-proclaimed “weather nerd” and avid marathoner, and lives in Chicago with her partner and their impeccably adorable pup.