

Art Can Help Broaden the Public Conversation on Climate Change

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Introduction

Climate Change is a complex scientific subject with a plethora of data-rich reports that detail its causation and diverse impacts. Nevertheless, as important as all that information is, not everyone responds to facts and figures or charts and graphs. Given the importance of raising awareness and increasing public understanding of this critical issue, alternate methods are needed to reach this group.

One such avenue of communication is through the arts. Building on my experience in that field, I recently developed and delivered a lecture called "The Art and Science of Climate Change". It introduces audiences to the basic science of climate change and explores how artists are reacting to its various impacts. Expanding on this qualitative approach, the goal of this project was to quantify the influence art has on people's opinions. More specifically, it sought to measure how much art can help communicate the issues of climate change.

Methods

Using visual materials, an online poll of 300 people from across the US was conducted via Survey Monkey.

Participants were asked:

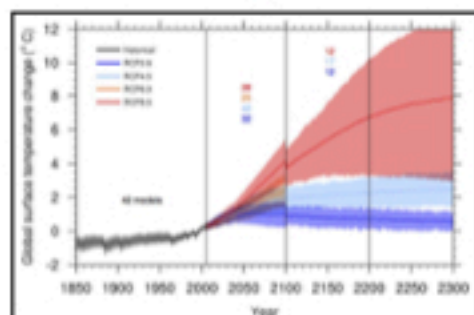
- Baseline questions about their attitude toward climate change and their familiarity with art.
- Comparison questions about the influence of traditional graphs vs. artistic interpretations of climate change.

Graph was sourced from the IPCC's fifth assessment report (AR5). Artwork was sourced from both photojournalists and conceptual artists.

Demographics



Images



Graph from IPCC report that plots different temperature trajectories based on different greenhouse gas concentrations in the future. Credit: IPCC



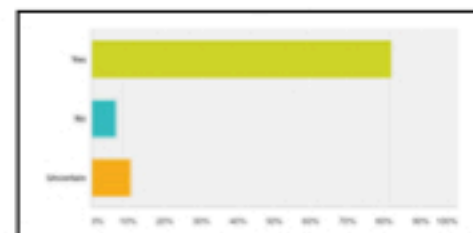
Homes surrounded by floodwaters in Horry County, SC after record rainfall in October 2015. Credit: Janet Blackmon Morgan/AP



An art installation known as "Melting Men" set up in Berlin by Nêle Azevedo, a Brazilian artist, in 2009. It consisted of 1000 miniature ice sculptures that were left out to melt. Credit: Nêle Azevedo.

Survey Says...

Do you acknowledge that climate change is real and happening now?
Yes: 82% No: 7% Uncertain: 11%



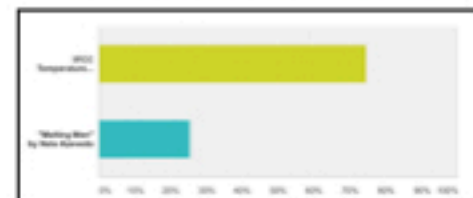
Has art ever changed the way you think about a subject?
Yes: 64% No: 36%



IPCC Graph vs. Image of SC Floods:
Which image is more influential in changing how you think about climate change?
IPCC Graph: 58% SC Floods: 42%



IPCC Graph vs. Melting Men Installation:
Which image is more influential in changing how you think about climate change?
IPCC Graph: 74% Melting Men: 26%



Results

On average, the majority of participants thought that scientific graphs were the best method of visual communication about climate change (66%). However, a significant number (34%) were more influenced by an artistic image. Overall, 64% said art had changed the way they thought about a subject in the past. Margin of Error +/-5%



Conclusions

The survey results suggest that in order to reach the entire population on climate change, a variety of visual outreach methods are needed. Traditional scientific graphs appear to work for the majority, but a significant percentage of the participants related more to this critical issue via art. This implies that art can help broaden the effort to communicate the science and impacts of climate change to the public.

Given the fact that two different styles of art - documentary and conceptual - were presented for comparison to the graph, it is interesting to note the 16% difference between the two images. The documentary-style photograph of the South Carolina floods was selected more often than the conceptual art installation, suggesting that more people relate to scenes they recognize and in which they can see themselves. The relatively low response to the conceptual piece is likely because it speaks to the issue in terms that are more ambiguous. These results are in line with other social-science research studies that show people generally regard immediate and identifiable threats as more relevant than abstract ideas about problems in the future.*

Regardless of style, 64% of participants said art had changed the way they thought about a subject in the past. This clearly identifies art as a powerful tool of communication.

*Weber, E. J. (2006). Experience-Based and Description-Based Perceptions of Long-Term Risk: Why Global Warming Does Not Scare Us (Yet). *Climate Change*, 77(1-2), 103-120.