

Photojournalism as a vehicle for public engagement with climate change

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Environmental activists march in downtown Pittsburgh, July 31, 2014. Source: AP photo/Gene J. Puskar

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Robert Kofi Bamfo, Corporate Manager, Forestry Commission, Ghana, at the 2005 UN Climate Conference in Montreal. Source: Joel Sternfeld, *When it Changed*



Roy Alexander fixing new road sign signaling the UK's first carbon neutral village, Ashton Hayes in Cheshire. January 2006. Source: Ashton Hayes Going Carbon Neutral photo gallery.



Melanie Martinez holds the family cat, which she renamed Isaac, after salvaging items from her flooded home. 2012. Source: Mario Tama, Getty.



EXECUTIVE SUMMARY

The power of photographs to engage the public with multifaceted, complex issues of global scope such as war, hunger, and terrorism has been widely discussed and researched by media and social studies. However, all too often images accompanying “environmental” stories in the news are chosen according to worn out stereotypes of nature, whereby the image serves merely as an illustrative “hook” for the text, conveying no story of its own. On the other extreme, images associated with climate change stories veer towards the gripping yet distant sublime, often leaving audiences deeply concerned yet hardly moved towards action or even attitude change. In this brief, summarizing the most relevant studies of climate change image impacts of the last decade, I provide four concrete recommendations for photo editors wishing to employ images that maximize the public’s affective, cognitive and behavioral engagement with this pressing issue.

1. When possible, use local images to demonstrate local relevance of climate change impacts.
2. Include people. Photographs that include people are typically much more engaging than photographs that do not.
3. Go beyond showing victims of climate change. Strive to show inspiring examples of leaders or innovators.
4. To the extent possible, show harbingers of enviable futures (such as green cities, energy neutral buildings, affordable electric cars) rather than markers of certain doom and destruction.

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It is now widely accepted that science and environmental communicators must move away from the “deficit model” which rested on the assumption that accurate understanding of a social problem (including its causes and consequences) would lead to solution-conducive attitudes and actions. Numerous empirical studies in communication theory as well as in social psychology have shown that far from being purely rational, objective recipients of information, members of the public use unconscious mechanisms such as confirmation bias in order to filter out the uncomfortable or unacceptable implications of the information presented to them. As a result, many people can reach significant levels of knowledge about the reality of human induced climate change, and even develop a sense of concern with the issue, but they do not become “engaged”, rather erring on the side of apathy or defeatism.

In the light of such findings, communicators on all ends of the spectrum, from the IPCC to international NGOs to media outlets, have been searching for ways not to simply convey information on climate change to the public, but to communicate about climate change in a way that heightens public engagement with the issue. As Noah Feinstein clearly and succinctly explains, “engagement implies connectedness (...) this includes how people think about climate change (what they know, what they decide to learn), but it also includes how they feel about it, and how their thoughts and feelings lead them to act in ways that, from their perspective, are connected to climate change”.

Of all the media which can especially work to influence the public’s mind, heart and desire to act at the same time, photojournalism stands out as one which, especially since the 1950s, has demonstrated significant potential. One need only think back to the impact of photographs from Vietnam, or the role of images in the civil rights movement, as well as the well documented influence of photographs from disaster or poverty stricken areas on donations to international charities. The reasons for this uncanny ability of photography to mobilize our minds, hearts, and actions, not necessarily in that order, are complex. Firstly, photos are unique signifiers: they physically bear the trace of what they depict, not unlike a print in the mud, which is necessarily connected to the animal that left it there. Semiotics refers to this quality as “indexicality” and it forms the basis of photography’s “truth claim” and implicit trustworthiness. Photographs also lack propositional syntax, which means one image can lead to many interpretations, and no image dictates its meaning to the viewer. Layers of meanings can be embedded within photographs, and research in neuroscience has shown that sometimes, the emotional part of the brain reacts to the image before the “rational” part can process the information contained within it (Todd & Anderson 2014). Finally, photographs can have a much more direct influence on public engagement than scientific graphs or computer simulations, since their interpretation requires no specific skill set (Doyle 2011, p. 44-45; Shah & Hoeffner, 2002).

Prevalent photographic frames of climate change and their effects

Hannigan (2006, p. 77-78) emphasizes that images play a role in the social construction of environmental problems, by presenting environmental issues “in highly symbolic and visual terms ... [which] provide a kind of cognitive short cut compressing a complex argument into one that is easily comprehensible and ethically stimulating.” In a globalized world, Szerszynski and Toogood (2000) have especially underlined the potential for images to foster a sense of ecological citizenship and global awareness. Sadly, and often for reasons due to shortage of photo editing staff, today’s newsrooms do not employ photos in ways most conducive to higher public engagement with climate change. Research (Rebich-Hespanha et al, 2014; Doyle 2011; Manzo 2010a) shows the following most common visual themes are employed:

- images of pollution and GHG emission sources (smoke stacks, freeways)
- images of climate change impacts (drought, cracked earth, floods, people in distress), especially:
 - o images of ice sheets melting or before/after comparisons of receding glaciers
 - o images of stranded polar bears on ice floes
 - o images depicting devastation in vulnerable, usually developing countries
- images of renewable energy sources and mechanisms (wind turbines, solar panels)
- images of politicians negotiating or making speeches related to climate change
- images of celebrities or opinion leaders advocating for climate change action
- images of civil society action on climate change, including NGOs

A good way of surveying these visual frames is to look at the following three figures. They are all screenshots of the first 18 images which appear in Google Image search results for “climate change” when limited to the websites of particular news entities: CNN, The Guardian, and Die Zeit.



Figure 1 Result of Google Image search for "climate change" on site:cnn.com

In the selection of images Google found on CNN.com, we see especially images of ice and polar bears, with dry earth images following close behind.



Figure 2 Result of Google Images search for "climate change" on site:guardian.co.uk

As for The Guardian, here we see also a strong presence of the two types found above, but there are more photographs of human beings, negotiating, taking action, which is encouraging. Many of the images featured here remain “symbolic” rather than specific, however.



Figure 3 Result of search for "Klimawandel" on site:zeit.de

Finally, the German newspaper *Die Zeit* seems to feature almost no human figure, and only images of pollution or destruction related to climate change. In general, all the images featured above are highly symbolic, often serving as visual metonymies, inspiring feelings of nostalgia, loss, and fear. What does recent research have to say about the impact of such visual tropes on public engagement with climate change?

Research in the last decade, especially originating from the UK, has reached several conclusions as to the impacts of such images on engagement. Lester and Cottle (2009) found that visuals used in television news coverage of climate change tend to be heavily symbolic (often serving as a metonymy for a wider concept) and spectacular (inspiring awe or dread). Cottle (2009, p. 91) warns however, that there is a risk of audiences becoming “voyeurs only of impending catastrophe” if communicators stop at spectacular, even sublime images of what we stand to lose or what has already been

lost. Moeller (2006) noted in an analysis of the media coverage of humanitarian crises across the world, “the right images can arrest our attention, but that is just the first and perhaps the easiest step to take” (p. 185). Too often, the images we see in media coverage of climate change lead us only and at best to that first step of alertness and concern. In addition, as we have seen in the short image search above, photographs of impact tend to depict havoc wrought by climate change in very distant areas to those immediately familiar to audiences, enhancing the psychological distance felt by viewers. For that reason, using impact images from areas familiar to the target audience is always recommended (CRED & EcoAmerica, 2014, pp. 41-43; Roser-Renouf 2015, p. 378). In a similar vein, O’Neill & Nicholson-Cole (2009) have shown that visual “fear appeals” and images which demonstrate the negative impacts of climate change may well capture people’s emotions, but at the same time tend to leave viewers feeling overwhelmed or powerless, and in effect, lead to disengagement rather than engagement.

Smith and Joffe (2009), on the other hand, find that images of impacts can serve a positive role of maintaining a sense of urgency and bringing the issue closer to home, which is especially effective if the impact images contain humans suffering from the adverse effects of climate change – this, according to the authors helps personify the issue to audiences. Nonetheless, research suggests the existence of an apparent dilemma between images which are highly salient (i.e., raise awareness and concern) and those which are highly conducive to feelings of self-efficacy in viewers (i.e., the idea that the viewer feels empowered to do something). Few images, as shown by O’Neill et al. (2013) seem to have the power of enhancing both salience and self-efficacy. Thus it is important to combine images in such a way as to achieve both, since Peters et al (2013) have shown there to be a “significant interaction between threat and efficacy, such that threat only had an effect under high efficacy, and efficacy only had an effect under high threat” (s8).

As a result, O’Neill (2013) recommends using images of impacts occurring as close as possible to the targeted audience, combined with images of innovative solutions, such as green cities or electric cars, to the challenge of curbing GHG emissions. Images showing current successful mitigation and adaptation efforts are alarmingly rare, despite studies showing their positive effect on audience perceptions of self-efficacy. Roser-Renouf et al (2015) emphasize that communicators should “focus on building efficacy to complement risk perceptions as a motivator for action” (p. 375) especially in messages aimed at those already highly “concerned” or even “alarmed” about climate change. In addition, they point out that this helps promote coherence between descriptive and injunctive norms for behavior: in other words, rather than showing people contributing to GHG emissions, “messages should suggest that desirable views and actions are widespread, growing in popularity, and characteristic of admired individuals” (p. 379).

Recommendations

The following recommendations are offered to communicators using images for the communication of climate change:

1. When possible, use local images to demonstrate local relevance of climate change impacts. When images of distant places are used, if possible include elements that will make viewers feel more culturally connected to the image.
2. Include people. Photographs that include people are typically much more engaging than photographs that do not. When possible, include interaction between people: this adds depth and interest to the image.
3. Go beyond showing victims of climate change. Strive to show inspiring examples of leaders or innovators.
4. To the extent possible, show harbingers of enviable futures (such as green cities, energy neutral buildings, affordable electric cars) rather than markers of certain doom and destruction.

Appendix: An analysis of the “bad” and the “good” in climate change news imagery

What follows is a brief practical and critical examination of images recently published in prominent newspapers, relating to climate change. Following DiFrancesco and Young (2011), the image will be analyzed in conjunction with its accompanying headline and image caption.

The Guardian. Feb 10, 2015. [See story here.](#)

Scientists urge global 'wake-up call' to deal with climate change

1. The image itself, a photograph taken by the ISS space station of clouds hanging over some landscape, is remarkable in its lack of content. It is the kind of view many people expect to see when flying. Granted, the clouds look ominous, though it is unclear why. However, this image conveys virtually no information whatsoever about climate change, and does not have any aesthetic or illustrative appeal either.
2. The headline is "Scientists urge global 'wake-up call' to deal with climate change " and this obviously has nothing to do with the image. Perhaps the only thing that resonates between the headline and the image is the notion of "global", since the image is taken from space it emphasizes the Earth's small size and oneness. There is a significant disconnect between the text and the image.
3. The image's caption is: 'The likelihood of eventually considering last-ditch efforts to address damage from climate change grows with every year of inaction on emissions control,' says US National Academy of Science report. Photograph: ISS/NASA" Normally, if a headline or lede paragraph do not display any visible links with the image, you could expect the caption, which is text placed under the image specifically to help readers understand what they're looking at, to fill that gap. Not so in this case. The caption doesn't even say one word about what is in the image.

Climate change has advanced so rapidly that work must start on unproven technologies now, admits US National Academy of Science



The likelihood of eventually considering last-ditch efforts to address damage from climate change grows with every year of inaction on emissions control, says US National Academy of Science report.

Figure 4 Image accompanying a story in The Guardian on Feb 10, 2015

In conclusion, this image is a great example of very poor visual communication on climate change. It cannot even be said that this image illustrates anything. It is at best a "filler". The only redeeming quality it may have is to emphasize the visual trope of

"spaceship Earth" and perhaps provide an overall ominous feeling, to get the reader interested through fear.

The New York Times. September 22, 2014. [See story here.](#)



Figure 5 Front page of the New York Times on Sep 22, 2014

1. There are four photographs presented here together in a set. This reduces the impact of each image proportionately, but allows more of a narrative to be deployed through the visuals. They all show different aspects and scales of the People's Climate March held in September 2014. Though the first three images are quite redundant, they show that a) youth were implicated, b) familiar New York City spaces where full of people concerned by this issue c) people made signs and specific demands. The fourth image (bottom right) serves the function of "visual evidence" of the overwhelming number of people who turned out for the March, fitting in with other historic marches like the March on Washington, or the more recent Unity March in Paris after the Charlie Hebdo attacks.
2. The headline reads: "Taking a call for Climate Change to the Streets" - this headline is a bit unfortunate, considering that "a call for climate change" could be seriously misinterpreted. However, the headline does reinforce the images in that it shows climate change concern as not being reserved to a liberal overeducated elite who doesn't have "real" or "pressing" problems: it shows that masses are now aware and concerned.

3. The caption reads: "Thousands paraded through Manhattan in the People's Climate March on Sunday. Rallies were also held around the globe." It explains what is shown on the images and does not skew their interpretation too strongly. Overall, the images contain information and a narrative that in this case words could not do justice to. It is very different reading a sentence like "From as close as the Bronx and as far as at least Rome, the demonstrators came in vast numbers." and seeing the sheer mass of people on the photograph. These images of huge crowds transforming the streets of one of the world's most important cities in the name of a public policy issue activate deep-seated visual tropes from our collective memory and point to the importance and relevance of the issue. In other words, seeing that the issue mobilized such huge crowds (and not a few tree-huggers) in one of our most prominent cities (rather than in some distant, remote place of misery) makes it difficult to remain indifferent. This is why this set of four images is very effective.

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