

Opinion: I'm a climate scientist. If you knew what I know, you'd be terrified too

Opinion by Bill McGuire

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The Bidwell Bar Bridge backlit by a fire in Oroville, California, in September 2020, when record-breaking blazes broke out in the state. Josh Edelson/AFP/Getty Images

Editor's Note: Editor's Note: *Bill McGuire is professor emeritus of geophysical & climate hazards at University College London and author of "Hothouse Earth: An Inhabitant's Guide."* The views expressed in this commentary are his own. Read more [CNN opinion](#) here.

CNN —

Are you frightened by climate change? Do you worry about what sort of world we are bequeathing to our children and grandchildren? In the words of science writer and author of "The Uninhabitable Earth" David Wallace-Wells, "No matter how well informed you are, you are surely not alarmed enough."

I would put it even more strongly.

If the fracturing of our once stable climate doesn't terrify you, then you don't fully understand it. The reality is that, as far as we know, and in the natural course of events, our world has never — in its entire history — heated up as rapidly as it is doing now. Nor have greenhouse gas levels in the atmosphere ever seen such a precipitous hike.

Think about that for a moment. We're experiencing, in our lifetimes, a heating episode that is probably unique in the last 4.6 *billion* years.

While those of us working in the climate science field know the true picture, and understand the implications for our world, most others do not. And this is a problem — a big one. After all, we can't act effectively to tackle a crisis if we don't know its full depth and extent.

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What's happening to our world scares the hell out of me, but if I shout the brutal, unvarnished truth from the rooftops, will this really galvanize you and others into fighting for the planet and your children's futures? Or will it leave you frozen like a rabbit in headlights, convinced that all is lost? It is an absolutely critical question.

With politicians and corporations unable or unwilling to take action rapidly enough to stymie emissions as the science demands, all we as climate scientists are left with is to seek to rouse the public to try and force through — via the ballot box and consumer choices — the enormous changes required to curb global heating.

But would telling it like it is do the trick, or would the burden of truth be too much to bear?

A major psychological study, published by the scientific journal Lancet Planetary Health in 2021, found that most 16–25 year olds in 10 countries across the globe were moderately to extremely worried about climate change, but more than half felt overwhelmed and powerless to act. It would seem reasonable to argue, on this basis, that painting an even worse picture wouldn't help. But if this is the case, does

it mean we shouldn't provide people with the full facts if they are too scary? Surely not.

In fact, this isn't a matter of scaring or not scaring people, but of informing them. As a climate scientist, it is my duty to tell you about what is happening to our world, whether it engenders fear or not.



An iceberg floats past houses on Disko Bay, Greenland, during unseasonably warm weather on July 30, 2019. Sean Gallup/Getty Images

A failure to do this will mean that the public is left ignorant of the true extent of the climate emergency, which in turn can only hinder engagement and action.

This is already becoming a problem, with many commentators on the right of the political spectrum, along with some climate scientists, denigrating as “doomers” anyone flagging the worst outcomes of global heating. Such climate “appeasement” is increasingly taking the place of denial and could be an even greater driver of inertia than fear, as it plays down the enormity of the problem — and as an inevitable consequence, the urgency of action.

The truth is that people *can* take being scared if they know there is still hope and that they can do something to make things better, or at least stop things getting worse.

A [2022 study](#) by researchers from the University of Bath in the UK found that scary images of wildfires and other climate-related catastrophes around the world were particularly effective at cultivating [climate anxiety](#), defined by the American Psychological Association as the chronic fear of environmental doom. Rather than leading to inaction, however, the study showed that this could be a motivating force that spurred the sample of UK adults to adopt measures that helped to reduce emissions.

Critically, the authors of the study observed that the reality of climate change has to be communicated without inducing a feeling of hopelessness — and this is the key.

One of the ways of doing this is to encourage collective action. Many people have said to me that they feel isolated or that as individuals, they don't think they can make a worthwhile difference.



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My answer is always to join a group of like-minded people and to work with them to drive institutional and systemic change. In every case, this has had a galvanizing effect, replacing hopelessness with hope; inertia with action.

The bottom line is that many things in life are scary or worrying, from going to the dentist to noticing a potential sign of cancer, but ignoring them almost invariably results in something far worse happening down the line.

Climate change is no different. Everyone has the right to know the facts — scary or not — so as to provide the opportunity to act based upon the reality of what we are doing to our planet, and not on some sanitized version.

Rather than leading to inaction, I believe this could be transformative.