

# A NEW ERA IN CLIMATE COMMUNICATIONS

WHITE PAPER



ARTIST-ELIJAH MCKENZIE - JACKSON



# CONTENTS

---

## **In Support of This Work** I

Testimonials

---

## **Acknowledgments** IV

Report team, NZW team, contributors, cover artist, partners/funders (see page 19 of Exec Summary)

---

## **Foreword by Natalia Vega** VII

---

## **2024 update: Misinformation, disinformation and polarization - responding to rising risks** IX

---

---

<b>1. Re:focus – It’s Not Just Climate Change</b>	<b>01</b>
1.1 The roots of the crisis	04
1.2 It’s All Connected: People And The Planet	13
1.3 Entering Uncharted Territory	25

---

<b>2. Re:wind – How Did We Get Here?</b>	<b>31</b>
2.1 Climate Misinformation	33
2.2 Greenwashing	51
2.3 The Paris Agreement and climate communications	66

---

<b>3. Re:think – The Current State Of Climate Communication</b>	<b>67</b>
3.1 Where Have We Gone Wrong?	68
3.2 The Political And Cultural Landscape Of Media	69
3.3 Why We Need An Ecosystem View	88
3.4 The Case For Funding Climate Advocacy	91

---

---

<b>4. Re:wire – Our Brain And Climate Change</b>	98
4.1 The Psychology Of Climate Change	100
4.2 The Climate And Mental Health Crisis	125
4.3 Human Psychology For Catalyzing Action	130

---

<b>5. Re:create – Crafting New Climate Change Narratives</b>	140
5.1 Current Frames And Narratives On Climate Change	142
5.2 Is Doomism The New Delay?	152
5.3 Training The Communicators	164

---

<b>6. Re:imagine – Transforming Climate Communications</b>	173
6.1 The Power Of Climate Storytelling	175
6.2 Revolutionary Hope And Optimism	191
6.3 Creativity As A Force For Good	196
6.4 Climate Literacy And Education	216

---

---

<b>7. Re:commit – Supercharging Climate Action Through Creativity</b>	<b>246</b>
7.1 Future-proofing The Media Landscape	249
7.2 The Business Case For Sustainability	264
7.3 The New Role Of Advertising And & Marketing	286
7.4 Emerging Technologies	306

---

<b>8. Re:sist – The Rise Of Active Citizens</b>	<b>310</b>
8.1 The Rise Of Global Citizenship	312
8.2 The Rise Of The Youth Climate Movement	321
8.3 Influencing The Influencers	332
8.4 All Hands On Deck	344

---

<b>9. Re:start – A New Era In Climate Communications</b>	<b>353</b>
9.1 In Conclusion	354
9.2 Recommendations	356
9.3 Legal Disclaimer	356
<b>Appendix 1 - EPIC</b>	<b>357</b>

---

# IN SUPPORT OF THIS WORK

---

"It is high time to invest in climate communications to drive action. The White Paper on Climate Communications, a product of radical collaboration with diverse stakeholders, shines a bright light on the best ways to elevate and popularize discourse about climate change and the real solutions we need right now. It underscores the imperative of leveraging all communication tools and partnerships to inspire change."

- Eileen O'connor, Rockefeller Foundation

"This paper fills a void by elegantly synthesizing the latest trends and research into one place, granting the reader a bird's eye view of major trends shaping the industry."

- Emma Stewart Netflix Sustainability Officer

"This White Paper is an industry resource to support a critical and just transition. The undeniable evidence of sustainability's impact on brand value demands that it becomes the top priority for the C-suite."

-Dagmara Szulce, Global Executive Director, International Advertising Association

"We are excited to contribute to this important resource to help drive meaning, connection and impact on the most important topic before us all."

-Simon Mulcahy President, Sustainability, TIMECO<sup>2</sup>

"This is an amazing, rich resource that we're very happy to have contributed to. We'll be sharing far and wide!"

-Purpose Disruptors

"I used "A New Era in Climate Communications" as a teaching tool within my graduate-level communications course at Arizona State University. Students were asked to highlight excerpts that felt most important, and share best practices they committed to beginning based on the learnings within the report. The moments they spent with "A New Era in Climate Communications" will continue to help these sustainability leaders make progress toward important ambitions."

- **Becky Lakin, Associate Faculty, Arizona State University, School of Sustainability**

"Such a brilliant, comprehensive resource! Staying informed whilst we communicate on the Climate Crisis is key to encouraging others to take steps towards Net Zero. Incredible work, Natalia Vega-Berry and all those involved."

- **GOOD LOOP, Advertising Services**



# ABOUT A NEW ERA IN CLIMATE COMMUNICATIONS

---

**A** New Era in Climate Communications is a collaborative effort spanning more than 60 contributors and organizations, developed over the course of eight months and thousands of hours. Developed by the New Zero World with the support of The Global Commons Alliance. The goal of this White Paper is to propose a novel strategy for effective climate change communications across institutions and sectors.

With this work, we want to lay the foundation for a transformed future through the power of communication and creativity. We are developing a radically new approach which brings together science and creativity to reimagine and rework how we communicate about the climate crisis – the biggest challenge and opportunity facing humanity today.

A New Era in Climate Communications provides the foundation for our implementation project, the Earth Public Information Collective (EPIC). EPIC is a global media and communications coalition supporting direct public engagement in tackling the planetary emergency by engaging the public at unprecedented scale with public service campaigns, accurate science and reporting, and easily accessed resources for public action/solutions to protect people and the planet.





# ACKNOWLEDGEMENTS

---

A project of



with the support



## PROJECT TEAM

---

**Natalia Vega** - Founder and Executive Director, New Zero World, Project Lead

**Jessica Kleczka** - Research and Development

**Tim Kelly** - Executive Director Earth HQ, Global Commons Alliance, Supporting Partner

**Mike Fleisch** - Strategy, Global Commons Alliance, Supporting Partner

**Lindsay Crowder** - Campaign Director

**Samuel Rubin** - Impact and Partnership Lead

**Ross Findon** - Communications Director

**EJ Baker** - Design and Tech Lead

**José Chen** - Research Coordinator

**Mohammed Shaan** - Graphic Designer

**Bella Lack** - Volunteer Coordinator

**Salma Sherif** - Digital Support

**Nicol Romero** - Project Coordinator

## SPECIAL THANKS

---

**Jane Madgwick** - Executive Director of the Global Commons Alliance

**Jean-Marc Papi** - Horizon Media

**Anthony Leiserowitz** - Yale School of the Environment

**Elijah McKenzie - Jackson**, Artist and Activist

**Linda Lopez** - Global Commons Alliance

**Maher Nasser**, - UN Department of Global Communications

**Shyla Raghav** - Co-founder, Time CO2

**Sweta Chakraborty** - Founder - We Don't Have Time

**PJ Pereira** - Brazilian writer

**Susan Joy Hassol** - Director of Climate Communication

**Michael Mann** - Climate Science Legal Defense Fund

# CONTRIBUTING ORGANISATIONS

TIMECO<sub>2</sub>

ClientEarth



CLIMATE GROUP

Laudes ———  
— Foundation



Kin

STEIN  
IAS



Accenture Song



GLOBAL  
CITIZEN

THE  
YEARS  
PROJECT



# CONTRIBUTORS

---

Anna McShane

Ann-Christine Duhaime

Ben Walker

Camille May

Chris Duncan

Chris Filardi

Christine Arenas

Christopher Moscardi

Dagmara Szulce

David Fenton

Dominique Palmer

Donal Keenan

Hervé de Clerck

Isaias Hernandez

James Salazar

Jean-Marc Papin

Jillian Gibbs

Joao Talocchi

Joel Bach

Johnny White

Jonathan Wise

Juan Carlos Gómez de la Torre

Karen Land Short

Kwame Taylor-Hayford

Laura McGorman

Leah Thomas

Michaëlle Lai

Mike Miura

Nyombi Morris

Omnia El Omrani

Paddy Loughman

Rajiv Shah

Richard Armstrong

Rob McFaul

Ross Findon

Lisa Merrick-Lawless

Lucy von Sturmer

Marcy Franck

Margaret Klein Salamon

Matteo Ward

Ryan Grippo

Sam Bentley

Samuel Rubin

Scarlett Westbrook

Shyla Raghav

Simon Mulcahy

Simon Cook

Sophia Kianni

Sophie Lambin

Sophie Ozoux

Susan Joy Hassol

Staci Roberts-Steele

Sweta Chakraborty

Thomas Kolster

Tyler La Motte

Tim Kelly

Tom Stein

Traci Dunne

Will Hackman

William Travis

Yellow Dot Studios

Zoe Tcholak-Antitch

Kumi Naidoo

# FOREWORD



## Natalia Vega

*Founder and Executive Director,  
New Zero World*

We are defined as humans by how we communicate.

**O**ther creatures largely learn from the things they experience themselves, but our ability to share experiences empowers us to learn from one another. As we have evolved, so has our ability to exchange knowledge, ideas and stories at ever greater speed and scale. From the creation of paper to the printing press, from radio to the internet, we now have the tools to send and receive billions of messages every second of every day and connect individuals with vast communities and audiences.

The scientist Peter Russel described this phenomenon as the global brain, and we believe it is this collective network on which our future depends.

Communication gives us the power to educate and inform people, and mobilize solutions to the climate crisis. On a deeper level however, climate communication is shaped by our individual experiences – the places where we live and work, the lives of loved ones, the communities we belong to, and the values and worldviews we hold true.

A lot of communication about climate change gets it right about the risk and possible negative scenarios, but wrong about how we move people to action. It appeals to reason, but everything we know about communication tells us reason is not what drives human behavior. It is vital we overcome this challenge and find ways to not only communicate the science, but mobilize public support for action and solutions.



Each of us must become multipliers of messages and think critically about the kind of stories we tell. Are we telling a story of despair and so-called inevitability? Are we telling a story about negative emissions, feedback loops, or other things most people don't understand at all? Or are we telling a story of hope, possibility, and human agency? More importantly, are we making it clear when we talk about this that there are choices we can make that will determine our future.

When I began this journey, I underestimated how far we had to go, but also how far we have come in our knowledge of effective climate communication. This white paper is the proof of that. It is full of lived experiences, studies, opinions, science, all created by a global community that cares deeply. Yet, much of this knowledge has been fragmented and not had the attention or investment it deserves.

Our intention with this white paper is to facilitate a digital knowledge hub, a place to learn, inspire and support, a place to explore and to break down the communication barriers standing in the way of solving the climate crisis. Working together is not an option, it is an impe-

native. United, we can bring together the knowledge that bridges the gaps between data and emotion, information and action, and work with each other in new ways to shape the campaigns, messaging and stories that will help determine our future.

This is the starting block, not the finishing line of a shared journey. Our ambition is that those who have contributed their expertise so far will be joined by many others. I invite you to join us in this effort, and we will share details of how at the end of this report.

There are no small contributions, each of you has the power to help light the torch that leads us on a new path.



# 2024: MISINFORMATION, MISTRUST, AND POLARIZATION

---

**T**he next 12 months are a pivotal moment in our collective response to climate change. More than half the world's population live in countries due to go to the polls in national elections this year<sup>1</sup> and, perhaps more than at any point in history, the leaders chosen in those elections will determine whether we will avoid the worst effects of climate change.

Yet, at this critical juncture, progress on climate solutions faces significant rising threats, which further emphasize the need for a transformation in global climate communications.

In January, the World Economic Forum's Global Risks 2024 report concluded that on a two-year time horizon; misinformation and disinformation are the number one risk we face, while polarization is the third (extreme weather events were identified as the second greatest risk).<sup>2</sup>

According to the World Economic Forum: "The widespread use of misinformation and disinformation, and tools to disseminate it, may under

mine the legitimacy of newly elected governments. Resulting unrest could range from violent protests and hate crimes to civil confrontation and terrorism. Beyond elections, perceptions of reality are likely to also become more polarized, infiltrating the public discourse on issues ranging from public health to social justice. However, as truth is undermined, the risk of domestic propaganda and censorship will also rise in turn. In response to mis- and disinformation, governments could be increasingly empowered to control information based on what they determine to be "true". Freedoms relating to the internet, press and access to wider sources of information that are already in decline risk descending into broader repression of information flows across a wider set of countries."

The impact of misinformation and the response to it, could go further, according to the latest annual Trust Barometer, produced by public relations firm Edelman - a company that has found itself in the firing line for its continued work with fossil fuel giants.<sup>3</sup>

The report raises fears over ‘a new paradox’<sup>4</sup>: “While people agree that scientists are essential to the acceptance of innovation, many are concerned that politics has too much influence on science. This perception is contributing to the decline of trust in the institutions responsible for steering us through change and towards a more prosperous future.”

Disturbingly, the report revealed that no single type of organization – business, government, NGO, or media – was trusted to introduce innovation to society. This is despite the clear need for the rapid introduction of innovations that can help to reduce greenhouse gas emissions, such as new materials, digital platforms, and novel energy and transport technologies.

Renowned trust expert and psychologist Rachel Botsman, sets out three evolutionary phases of trust in human society, describing our current model as ‘distributed’:

- Local - based on direct relationships with individuals, and the accountability that brought with it.
- Institutional - when corporations replaced functions that required trust, for example banking and commerce, and we began to rely on measures such as contracts, regulation and insurance.
- Distributed- where trust is accountability based and distributed among people, rather than top-down, for example online reviews and social media platforms.

On the subject distributed trust, she states: “Trust that used to flow upwards to referees and regulators, to authorities and experts, to watchdogs and gatekeepers, is now flowing horizontally, in some instances to our fellow human beings and, in other cases, to programs and bots. Trust is being turned on its head. The old sources of power, expertise and authority no longer hold all the aces, or even the deck of cards. The consequences of this trust shift, good and bad, cannot be underestimated.”

She adds: “Distributed trust explains why falsehoods and so-called ‘fake news’ can quickly spread through networks unchecked with an unstoppable momentum. Why we can gossip and gripe, share and like, without proper checks and balances or any real redress.”<sup>5</sup>



The growing mistrust in certain parts of the economic and political establishment is understandable and, as we acknowledge in *A New Era in Climate Communications*, the communications and creative industries must accept some responsibility for it – particularly in the climate change arena, where greenwashing, fossil-fuel funded misinformation, and polarizing narratives have been common.

As this paper identifies, misinformation, disinformation, mistrust and polarization are hallmarks of the climate crisis. With these fact-

ors predicted to become even more prevalent in 2024, it is imperative climate communicators are able to respond with the most effective tools and tactics – allowing them to challenge misleading claims and build the bi-partisanship and trust necessary for effective collaboration.





# CHAPTER 1 – RE:FOCUS

# IT'S NOT JUST CLIMATE CHANGE

---

“It’s not climate change—  
it’s everything change.”

- Margaret Atwood, poet and novelist, in Medium



## 1.RE:FOCUS

Concern about climate change is at an all-time high: According to a 2022 survey, 77% of people worldwide are worried about climate change, with 71% believing that we need to take faster action to address this critical issue. Meanwhile, 57% of people think that there has been little to no progress made to address the climate crisis.<sup>6</sup> Despite growing concern, there is a significant action gap between what scientists say needs to be done to prevent the worst impacts of climate change, and what governments, industry and the public are actually doing.<sup>7</sup> How can we truly say whether climate advocacy is successful?

The discrepancy between awareness and action can be attributed to the way we communicate. The way we talk about climate change – as scientists, citizens, businesses, and campaigners – greatly influences public perception of the issue and its potential solutions. Despite knowing about the science of climate change for decades, countries worldwide still struggle to make the systemic changes needed to reach safe and just climate targets.

Often communicated mainly through data and reason, the climate change conversation has created an echo chamber for scientists and activists. We urgently need a communication intervention that involves media, culture, cam-

paginers, businesses, governments, the scientific community, and citizens. To do this, we must address psychological barriers to climate engagement and action at both individual and collective levels, as well as consider the role of industries like fossil fuels and the media in accelerating or hindering progress on climate action.

The Intergovernmental Panel on Climate Change (IPCC), for example, plays a critical role in climate change communication. Its reports are intended to inform policymakers and the public about the state of the science and the potential impacts of climate change. However, the IPCC's technical language and emphasis on probabilities can be challenging and confusing for non-scientists to understand and engage with. In contrast, the latest IPCC Synthesis report used a different approach, highlighting both the threat of climate change by issuing a “final warning”, as well as emphasizing hope and solutions with refreshing clarity and urgency.<sup>8</sup>



## 1.RE:FOCUS

NGOs, scientists, and government officials tend to communicate effectively about the climate crisis among themselves, but their messages rarely reach the public. Additionally, in the majority of countries, climate isn't officially part of the curriculum in schools. Consequently, many people lack a basic understanding of planetary science, from high school students to corporate and government leaders. A shortage of engaging and transformative climate reporting further complicates the issue: Although some thriving climate journalism exists, much of it is hidden behind steep paywalls. As a result, a lot of the climate information people pick up online is inaccurate or even misleading. We need a stronger media presence to reach the public and foster the political will necessary for meaningful change, and we are starting to see more funders stepping up to fill this space. Without an informed and engaged public, it's hard to have the political will to achieve the changes that are needed – we need to get more people involved to build the support for the policy changes and the societal transformation required for a livable planet and a sustainable future.

Traditional climate communications have focused on presenting scientific data, stressing risks and consequences, and appealing to reason to drive action. However, logic and reason are not the key driver of human behavior – but rather, our values, worldviews, and embeddedness in socio-economic systems.

**RECOMMENDATION:** To create meaningful public engagement, bold, positive campaigns should focus on fostering a sense of efficacy – empowering individuals and communities to feel that their actions can make a difference in combating climate change. Effective climate change communications should reflect people's values, identities, and concerns while also highlighting the actions of their peers. Governments must prioritize public engagement by combining social science, communication, and policy expertise with the input of businesses, citizens, and communities. As attitudes and concerns about climate change continue to shift rapidly, people are eager for change and seeking support and information on how to get involved. By turbo-charging public engagement, governments can tap into this growing momentum for transformative action.



## 1.RE:FOCUS

### 1.1. A BRIEF HISTORY OF THE CLIMATE CRISIS

---

The world is on track to produce twice the fossil fuels in 2030 than would be consistent with the internationally agreed upon 1.5°C target. The time has come for the fossil fuel industry and the banks that fund it to be held accountable and have their social license revoked.”

**- Susan Joy Hassol and Michael Mann, in *Now Is Not the Time To Give in to Climate Fatalism, Time***

The world has warmed by about 1.3 degrees Celsius since the beginning of the Industrial Revolution,<sup>9</sup> with the IPCC’s Sixth Assessment report painting an urgent picture which was widely reported as “code red for humanity”: It is now unequivocal that human influence has caused widespread and rapid changes to the planet, affecting weather and climate extremes in every region across the globe. Unless deep reductions in CO<sub>2</sub> and other greenhouse gas emissions occur soon, global warming of 1.5°C and 2°C will be exceeded during the 21st century.

These alarming changes include extreme weather events such as heatwaves, heavy rainfall, and intense tropical cyclones, as well as warming oceans that lead to marine heatwaves and changes in sea levels, threatening coastal communities. Arctic sea ice, snow cover, and permafrost are also decreasing, worsening climate change effects. Some past and future greenhouse gas emissions are irreversible, others will last for centuries.<sup>8</sup>



# COMING TOGETHER TO TACKLE CLIMATE CHANGE:

BY RAJIV SHAH

PRESIDENT OF THE ROCKEFELLER FOUNDATION

With the climate crisis, we face the largest existential crisis to human well-being – but in the last few years alone, we have shown that we can tackle this crisis at scale in certain parts of the world. Now is our opportunity to make a commitment to solve the climate crisis – not just in wealthy nations, but all over the planet – and ensure that vulnerable populations are supported and able to avoid a catastrophic outcome. I'm hopeful that we can make it a reality, but the time to act is now.

It's crucial to act on climate change now, because the things we do in the next three to seven years will determine whether our planet warms uncontrollably, or if it can remain livable for billions of the most vulnerable people on earth. There are a lot of uncertainties for those most affected by this crisis: If you're someone in Sub Saharan Africa, will you have access to productive agriculture? If you live in coastal regions in Bangladesh, will you have a community that is overwhelmed by ocean levels? Is there sufficient land and capacity to sustain yourself? In almost every nation on the planet, will the people in those nations be able to survive and thrive? Or will they be migrating, hungry, more vulnerable to violence and conflict? This is the defining fight. And now is the time to take those actions.

We need clarity around what the baseline looks like relative to our goal. Despite some tremendous progress – from the Paris Agreement, major pieces of legislation and public investment in the United States, Europe, China and other countries – we are on a path to nearly three degrees of warming. UN conferences and gatherings have to take stock and grapple with that basic underlying reality. We also have to really be clear about what it takes to prevent the world from warming uncontrollably. Data shows that we need massive investment in the climate transition in emerging and developing economies – at a time when there are debt crises, fuel crises, food crises taking place everywhere in those economies. Richer countries have not lived up to the \$100 billion dollar pledge that was made in Copenhagen more than a decade ago to finance these efforts. Our basic instruments of multilateral cooperation have dramatically underperformed against the challenge we need. So we need a stocktake that is honest about the financing gap, and far more creative in terms of developing the types of institutions and solutions to solve that gap – as opposed to just talking about it.

When the Sustainable Development Goals were created, there were about a few basic propositions. The first was that **every human being, born anywhere on this planet, should live in an environment where their dignity is respected**, and they have the opportunity to survive and thrive. It's a very simple concept. The second was that the first proposition can only be

possible if we tackle climate change fully. The third is that we're only going to achieve that if we reimagine global solidarity and cooperation across nations, peoples, and importantly, across public and private sectors.

Those principles are at risk because the people who will lose their lives, livelihoods, homes and communities due to climate change are also the poorest people on this planet. Our goals are at risk because over the last years, we've lost our capacity to show real global solidarity through multilateral action and financing to tackle these problems. They're also at risk because every day that goes by, the crisis becomes worse and the challenge harder to overcome. I'm optimistic for a lot of reasons – but this is a year when we have to be really clear-headed about what the SDGs represent, and reaffirm a seriousness of commitment to achieve them.

Living in a world that is three degrees warmer than it is today would be devastating for many people. It means crops don't grow – and 90% of food is consumed and grown locally, within national boundaries. Waterborne and other types of diseases will overwhelm populations, especially the most vulnerable, in a world characterized by three degrees. We only just got through the COVID pandemic, and saw bodies carried away in trucks in the United States, a country that has all the infrastructure and trillions of dollars of healthcare spending per year. We can't allow that to happen again, especially in lower-income parts of the world where people don't have the resources to fight back.

Adding to the concerns outlined in the IPCC report, the World Economic Forum (WEF) reported a new warning from scientists this year, stating that a 1.5°C rise in global temperature will trigger tipping points and lead to the irreversible collapse of critical Earth systems, including the Greenland and West Antarctic ice North and South Poles in regulating the stability of the entire climate system. For the first time, scientists have defined planetary limits that ensure a safe and just corridor for people and



## 1.RE:FOCUS

the planet. Responding to the scientific data, world leaders have called for an end to fossil fuel consumption and stressed the urgency of acting decisively to prevent the climate crisis from escalating.<sup>10</sup>

However, despite the urgency, the world's current climate policies are projected to result in about 2.7°C warming above pre-industrial levels – which could be lowered to about 2°C through binding long-term targets. The recent energy crisis caused by Russia's invasion of Ukraine has prompted governments to focus on energy security, but many are doubling down on fossil fuels rather than prioritizing renewables, efficiency, and electrification. The oil and gas industry is pushing fossil gas as a solution, but analysis by [Climate Action Tracker](#) shows that gas expansion plans could seriously compromise efforts to meet the 1.5°C limit.

## 1.1. A BRIEF HISTORY OF THE CLIMATE CRISIS

tures from rising more than 1.5 degrees Celsius above pre-industrial levels. Swift, substantial greenhouse gas emissions reductions across all sectors are necessary, with emissions needing to be cut by almost half by 2030. The IPCC recommends a “climate-resilient development” approach, which involves integrating adaptation measures with actions to reduce or avoid emissions. Examples include clean energy access, low carbon electrification, promoting low carbon transport, and improving air quality. The report emphasizes the importance of government support in reducing barriers to lowering emissions by ramping up public funding and sending clear signals to investors.<sup>8</sup> UN Secretary-General António Guterres calls for climate action on all fronts, proposing a “Climate Solidarity Pact” for the G20 group of highly developed economies. Such a pact would entail all major emitters making additional efforts to cut

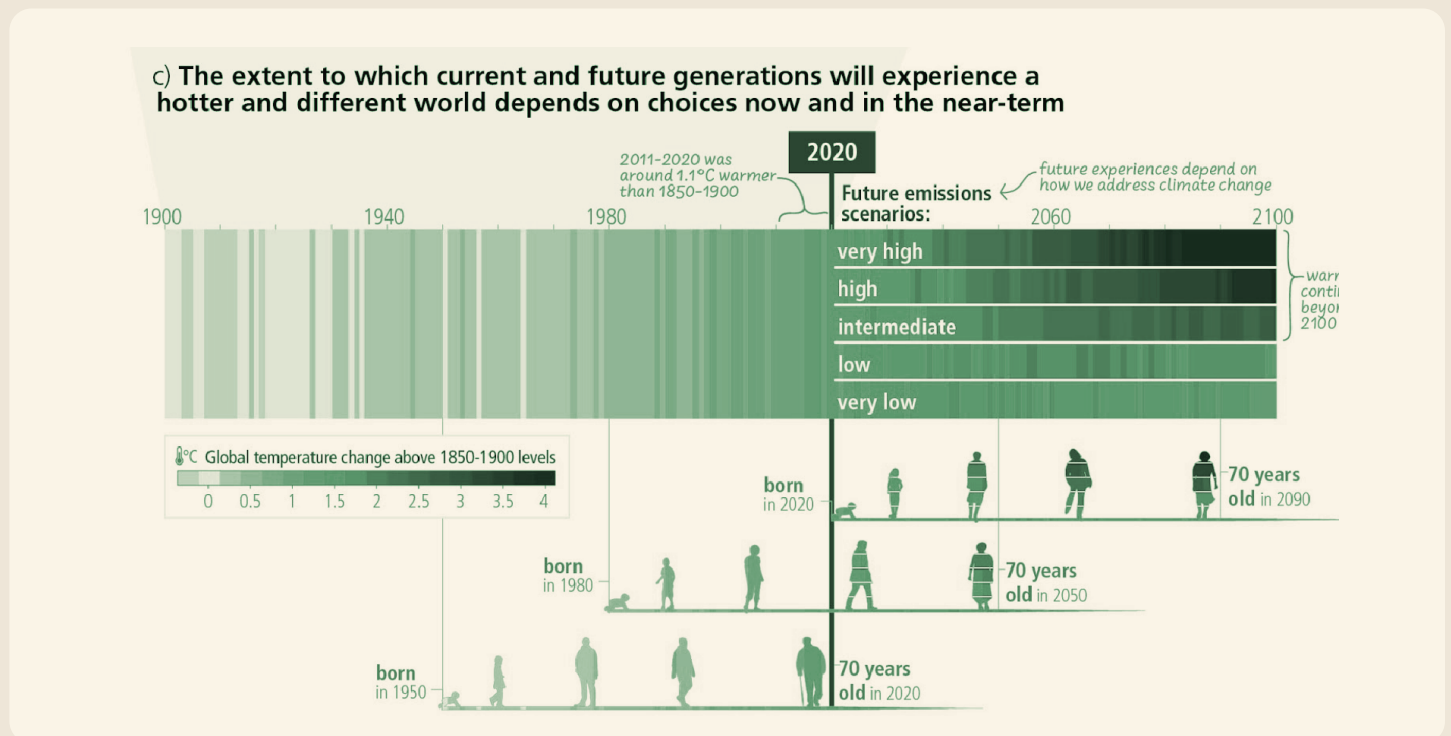


Figure 1: The extent to which current and future generations will experience a hotter and different world depends on choices made now and in the near-term.

Source: IPCC.

The IPCC's [2023 Climate Change Synthesis Report](#) underscores the urgent need for comprehensive climate action to prevent tempera

emissions, while wealthier countries provide financial and technical resources to support emerging economies.

### Countries where people are most likely to report feeling informed about climate change

---

#### HUNGARY



**96%**

People are the most likely to think climate change is happening now.

#### PORTUGAL



**95%**

People are the most likely to think climate change is happening now.

#### COSTA RICA



**94%**

People are the most likely to think climate change is happening now.

### Countries where people are most likely to report feeling informed about climate change

---

#### FINLAND



**92%**

of people in Finland say they know “a lot” or “a moderate amount” about climate change.

#### HUNGARY



**90%**

of people in Hungary say they know “a lot” or “a moderate amount” about climate change.



## Countries where people are the most likely to think that climate change is mostly caused by human activities

### SPAIN



**65%**

of people in **Spain** believe climate change is mostly caused by human activities.

### SWEDEN



**61%**

of people in **Sweden** believe climate change is mostly caused by human activities.

### TAIWAN



**60%**

of people in **Taiwan** believe climate change is mostly caused by human activities.

## Countries where people are most likely to say that they hear about climate change in their daily life at least once a week

### GERMANY



**65%**

### SWEDEN



**61%**

while respondents in Yemen (7%), Algeria, and Cambodia (both 9%) are least likely.

Figure 2: Countries where people feel the most informed about climate change.  
Source: Yale Program on Climate Change Communication.

## 1.RE:FOCUS

Today, international climate finance remains insufficient. Wealthy nations fell almost \$17 billion short of their pledge to collectively deliver \$100 billion of climate finance a year by 2020, according to data by the Organisation for Economic Co-operation and Development (OECD). High-income countries are now only expected to meet it in 2023, and have been further criticized for providing the bulk of funds in the form of loans rather than grants.<sup>11</sup> Meanwhile, fossil fuel companies have recorded a combined \$200 billion in record profits in 2022, following Russia's invasion of Ukraine.<sup>12</sup>

When implicit subsidies are included – namely, the health costs and damage born by citizens for the associated environmental pollution, including the damage done by climate change – the estimated financial support for the fossil industry stands at \$5 trillion, of which \$1 trillion is funded by the G20.<sup>13</sup> These perks didn't arise by accident – the industry used its immense wealth and influence to obtain them (see 2.1).<sup>14</sup> In the 2015-2016 election cycle alone, fossil fuel companies spent \$354 million in campaign contributions and lobbying.<sup>15</sup> Fossil fuel interests have also done everything possible to block subsidies and incentives for their competition – renewable energy – and they've had a lot of success doing so.<sup>16</sup> That has led to a perverse incentive structure in the ene-

## 1.1. A BRIEF HISTORY OF THE CLIMATE CRISIS

rgy marketplace through which we are artificially boosting the very energy sources that are hurting the planet, while devaluing those that can save it.

8 million people die from pollution every year - more than alcohol, drugs, HIV, violence and war combined.<sup>17</sup> How much are their lives worth? One estimate suggests there's a \$7.3tn cost not being paid,<sup>18</sup> but some have suggested that an accurate price tag for the ecosystem services of the natural world would exceed \$125 trillion dollars.<sup>19</sup> As Forum For A Future put it, "nature is the source of all value". With the global economy worth \$100 trillion (not including care work, largely done by women, which remains unpaid around the world), it's pretty clear that \$5 trillion is somewhat missing the mark.



## According to Trust Barometer data...



Figure 3: People's beliefs regarding climate change, the need to act, and speed of climate action.  
Source: Trust Barometer 2022.

In light of these challenges, the term 'Net Zero' has gained popularity in climate conversations, with most of the global economy adopting Net Zero targets in recent years. According to the IPCC, Net Zero emissions are achieved when anthropogenic emissions of greenhouse gasses to the atmosphere are balanced by anthropogenic removals over a specified period.<sup>8</sup> In the US, industry is responsible for 30% of all greenhouse gas emissions. However, the term 'Net Zero' is facing criticism: Current Net Zero plans and carbon offsetting schemes often rely on unproven technologies such as direct air capture of CO<sub>2</sub>, and projects which may infringe on vulnerable communities' rights, such as tree planting.<sup>20</sup>

National Net Zero policies are failing to curb emissions enough, putting us on a trajectory of a 14% emissions increase by 2030. To meet the Paris target of keeping warming below 1.5°C, a

45% decrease in emissions is required. Climate experts are now urging companies to focus on 'real zero' targets, where emissions are stopped before they enter the atmosphere. While Net Zero can be abused to justify business as usual, Real Zero would mean a near-total transformation of how we produce, consume, and live – moving away from wastefulness and towards efficiency.<sup>21</sup>

As we enter the next phase of this decisive decade, Christiana Figueres, architect of the Paris Agreement and former Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC), stresses the importance of working together as we embark on the upcoming phase of the critical decade – transforming climate anxiety, stress, and fear for the future into empowerment.<sup>22</sup> Despite the growing urgency of the climate crisis, there have been recent milestones that

## 1.RE:FOCUS

offer hope for a better future. At the biodiversity CBD COP15 in 2022, the global community recognized humanity's interdependence with nature and committed to halting and reversing nature loss by protecting 30% of all land and ocean areas by 2030. Countries also pledged to provide \$25 billion annually from 2025, rising to \$30 billion by the end of the decade, for a new fund to help poorer nations protect biodiversity.

Additionally, COP27, held in Egypt in 2021, established a new "loss and damage" fund, helping those most affected by climate disasters rebuild communities and increase resilience in a climate-warming world. In the US, the groundbreaking Inflation Reduction Act of 2022, was supported by 73% of US voters, and demonstrates the potential for policies that

## 1.1. A BRIEF HISTORY OF THE CLIMATE CRISIS

take decisive economic action and empower everyone to lead better lives. As we approach climate tipping points, Figueres calls for collective courage to close the gap between science and policy, acknowledging recent milestones and incorporating them into a new shared narrative of empowerment and possibility.<sup>22</sup>



## 1.RE:FOCUS

### 1.2 IT'S ALL CONNECTED: PEOPLE AND THE PLANET

The climate crisis is often described as the biggest threat facing humanity – but rather than an isolated issue, climate change amplifies and is exacerbated by other global threats. Recent years have seen a return of ‘older’ risks such as inflation, a cost-of-living crisis and the threat of nuclear warfare following COVID-19 and the Russia-Ukraine war. These threats are amplified and potentially multiplied by the emerging risks of climate change impacts, biodiversity loss, and a shrinking window for climate policies that put us on track for the 1.5°C Paris target.<sup>10</sup>

“While we are in the same storm, we are definitely not in the same boat. Some of us are in big boats with powerful engines, comfortable cabins to sleep in and plenty of life support systems, should they be needed. But others are in much smaller boats with very few supplies. Some of these boats even have holes in the bottom and are starting to leak. Still others are clinging to whatever they can find to help them to stay afloat. The vast majority are lacking the kind of equipment that is needed. And their cries will need to be heard.”

- Wanjira Mathai, managing director Africa and Global Partnerships, World Resources Institute

Countries with people that are most likely to say that climate change will harm them personally “a great deal” in



MALAWI  
**62%**



CHILE  
**61%**

and the least likely to say so in



CZECHIA  
**3%**



NORWAY  
**5%**

Countries with people that are most likely to think that climate change is either a “very serious” or “somewhat serious” threat to people in their country or territory over the next 20 years.



MALAWI  
**93%**



PORTUGAL  
**92%**



MEXICO  
**92%**

Figure 4: Countries where people are the most and least likely to say that climate change will harm them personally. Source: Yale Program on Climate Change Communication.

## 1.RE:FOCUS

In its 2022 Global Risks report, The World Economic Forum highlighted that while the cost-of-living crisis was the most severe global risk globally over the next two years, climate and environmental risks would dominate in the next ten years, with biodiversity loss and ecosystem collapse one of the fastest growing risks in the next decade. In fact, climate and environmental risks are at the center of global risks perceptions over the next decade - and they are also the risks we're least prepared for. Climate change and nature loss are closely interlinked, and a failure to tackle both of them will result in compound risks which could threaten food security and livelihoods worldwide. There is now a growing divergence between what is scientifically necessary to reach Net Zero, and what is politically feasible.<sup>10</sup>



## 1.2 IT'S ALL CONNECTED: PEOPLE AND THE PLANE

### Global risks ranked by severity over the short and long term

"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period"

#### Risk categories

Economic | Environmental | Geopolitical | Societal | Technological

#### 2 years

1. Cost-of-living crisis
2. Natural disasters and extreme weather events
3. Geoeconomic confrontation
4. Failure to mitigate climate change
5. Erosion of social cohesion and societal polarization
6. Large-scale environmental damage incidents
7. Failure of climate change adaptation
8. Widespread cybercrime and cyber insecurity
9. Natural resource crises
10. Large-scale involuntary migration

#### 10 years

1. Failure to mitigate climate change
2. Failure of climate-change adaptation
3. Natural disasters and extreme weather events
4. Biodiversity loss and ecosystem collapse
5. Erosion of social cohesion and societal polarization
6. Large-scale environmental damage incidents
7. Failure of climate change adaptation
8. Widespread cybercrime and cyber insecurity
9. Geoeconomic confrontation
10. Large-scale environmental damage incidents

Figure 5: Global risks ranked by severity in the short- and long-term.

Source: World Economic Forum.

## WHAT IS INTERSECTIONALITY?

BY LEAH THOMAS

FOUNDER INTERSECTIONAL ENVIRONMENTALIST

The Combahee River Collective, a Black Feminist group of the 60's, argued that if we fought for the most marginalized in society, then everyone would benefit - because their freedom would necessitate the destruction of multiple systems of oppression. When it comes to the climate crisis, that ethos carries over because those who are the least responsible for the climate crisis and environmental injustices – such as increased air pollution, water pollution and food insecurity – face the brunt of both. We cannot take a top-down approach to addressing the climate crisis and only focus on the fate of the future, when the reality for many now is already dire and compounded with things like income inequality and the fight for racial and gender justice.

We have a better shot of protecting our future if we address the realities of the inequity many people face in regards to environmental outcomes. Our fight for the planet cannot be separated from the fight for its people all over the world – especially when frontline communities have been advocating for change for decades, without always having support from the broader environmental community. The time is now to take an intersectional approach to climate action, where everyone has a seat at the table and the realities of environmental injustice in the present, receives equal support to ensure we create a future that's brighter. Intersectional environmentalism argues that the same systems of oppression that oppress people also oppress and degrade the planet. When a nation, such as one in the Global North, prioritizes extractive industries and profit over the planet, then it will likely also have interlinked social inequality. Degrading the planet also requires overlooking the negative impact on people, whether in the present or the near future. Intersectional Environmentalism also aims to create space for a more complete and inclusive retelling of environmental or natural history, one that embraces all cultural contributors to sustainability and environmentalism. Many Indigenous peoples worldwide have been better protectors and carers of the planet for thousands of years.

Colonization and industrialization, rooted in capitalism, were direct attacks on both people and planet and are responsible for the climate crisis we are in. It is more important now than ever that we validate Indigenous wisdom, credit its origins, infuse it into environmental education, and fully embrace different cultural values that exist as the blueprint to what is now known as "sustainability," well before that terminology existed.

By embracing these traditions and giving them a platform and space within environmental education, we will allow historically excluded groups to teach their own stories and be leaders in the environmental movement. Just as ecosystems thrive on diversity and respect for resources, we should look toward diversity as an enhancement to environmental education and advocacy.

## 1.RE:FOCUS

Climate justice and intersectionality help us understand that while everyone will be impacted by the climate crisis, its effects will not be distributed equally. Africa, for example, is responsible for only around 2-3% of historical emissions,<sup>23</sup> yet it is the continent most affected by climate impacts - including serious effects on food production leading to yield declines, price increases, and supply chain disruptions, fuelling conflict and migration with knock-on effects on the economy. Over the last decade, temperatures in Africa have been rising at twice the global rate, leading to more heavy rain, longer droughts, and more severe cyclones - making it a climate change hotspot. Africa is a stark example of how interconnected climate change is to other issues. Without climate action, the continent will not achieve zero hunger or gender equality - with girls being forced into early marriages due to food price increases, presenting decreased education opportunities and a decreased ability of generating independent income, all of which stemming from climate disasters.<sup>24</sup> While historically colonized countries are bearing the brunt of climate impacts,

## 1.2 IT'S ALL CONNECTED: PEOPLE AND THE PLANE

richer countries carry a disproportionate responsibility: Analysis by Carbon Tracker found that the United States are responsible for a vast proportion of historical emissions (most from fossil fuels), followed by China, Russia & Brazil (the bulk of emissions in Brazil stemmed from deforestation). However, looking at cumulative emissions, the US emitted over a fifth of the global total in emissions (compared to 11% from China, which has over four times the population). The UK tops the list in Europe, together with France & Germany.<sup>25</sup> Just as colonized countries bear an unequal burden of climate impacts, they are also being stripped of their agency and resilience by the sidelining of Indigenous stewardship. Richer countries – who are responsible for a significant portion of historical emissions – have a responsibility to recognize and support Indigenous rights. The US, China, Russia, Brazil, the UK, France, and Germany are all major contributors to the climate crisis – they must also be leaders in climate justice, advocating for the inclusion of Indigenous voices & their recognition in the global climate conversation.





“You can take anything — sexism, racism, misogyny, homophobia, whatever, the war — and if you really get into it, and study it and learn about it and the history of it, everything’s connected. There’d be no climate crisis if it wasn’t for racism. They’re not gonna put it [the poison and pollution] in Bel Air. They’ve got to find someplace where poor people or Indigenous people or people of color are living. They can’t fight back. And that’s why a big part of the climate movement now has to do with climate justice.”

- Jane Fonda, actress and social activist, in *The Kelly Clarkson Show*

Acknowledging the struggles and lived reality of marginalized communities is not only important in the context of climate impacts — the solutions to the crisis are often held by the very communities which have historically been silenced. Indigenous communities have a long history of living in harmony with their lands, and hold vital knowledge and perspectives that are crucial for effective climate action. Despite making up less than 6% of the world’s population, Indigenous communities protect 80% of the planet’s biodiversity.<sup>26</sup>

Centralizing Indigenous stewardship in climate communication is key to ensuring an inclusive and effective response to climate change.

Through centuries of close interaction with their territories, Indigenous peoples have developed complex systems of environmental management that are based on a profound understanding of local ecosystems. These practices have led to the preservation of rich biodiversity and the sequestration of vast amounts of carbon.<sup>27</sup> While Indigenous communities are on the frontlines of climate impacts due to their close relationship with the land, they are often marginalized in climate conversations and decision-making processes<sup>28</sup> — disregarding the wealth of knowledge and rights they hold over their ancestral lands. A failure to center Indigenous voices in climate action not only perpetuates this historical injustice, but also weakens our global response to the climate crisis.

**RECOMMENDATION:** To tackle the climate crisis effectively, we must engage and involve historically under-represented groups and those most affected by the climate crisis. Climate justice and intersectionality should be at the heart of our efforts: While the public’s understanding of climate justice is limited, its principles are largely shared. In our communication, local examples can raise awareness of the unequal impacts of climate change on marginalized groups, such as the disproportionate placement of fossil fuel infrastructure and air pollution in low-income communities. Intersectionality acknowledges that individuals from different backgrounds are affected differently by environmental issues due to factors such as race, gender, class, disability and education. These factors can overlap and create complex social identities and vulnerability to climate impacts.



## WHY WE NEED TO CENTER INDIGENOUS VOICES

BY CHRIS FILARDI

CHIEF PROGRAM OFFICER AT NIA TERO

Growing up in the urban environment of the Bronx in New York City, I found myself captivated by the diverse and complex facets of the natural world. My fascination led me to pursue a career as an evolutionary biologist, a field that introduced me to Darwin's 'On the Origin of Species.' This pivotal work played an instrumental role in directing me towards studying our planet's intricate ecosystems. But as I delved deeper into this exploration, I found myself chronicling the rapid decline and extinction of these very ecosystems and the human societies that have lived in harmony with them for generations.

This alarming trend mirrors the 'tragedy of the commons' concept, which explains how shared resources are overused and depleted in societies that prioritize individual rights over collective responsibility. This self-destructive pattern, apparent in the depletion of fisheries and forests and the pollution of the atmosphere, threatens the very existence of life on earth. But this narrative began to shift with the groundbreaking work of economist Elinor Ostrom, who countered the tragedy of the commons theory with evidence-based arguments. She argued that the issue was not with the shared resources themselves, but with how society manages them – which earned her a Nobel Prize for her work.

Similarly, the United Nations Declaration on the Rights of Indigenous Peoples put forth the interconnectedness of individual and collective rights. This landmark declaration highlighted that Indigenous societies that respect and uphold collective rights show the most durable and resilient forms of conservation and sustainability. These shifts in understanding are now mirrored in the Global Biodiversity Framework, which recognizes the value of indigenous guardianship in protecting the world's ecosystems. This recognition is not only critical but essential in preserving biodiversity and combating the climate crisis, which demands transformative change across all sectors of society. Indigenous peoples – who represent approximately 5% of the global population yet embody over 95% of the world's languages and a deep connection to our living planet – are already living dimensions of that transformative change. Their societies serve as the constituent parts of resilient ecosystems.

While we need to acknowledge the advancements in technology and reduction of suffering in our world, we must also recognize that our mainstream societies are facing a collective identity crisis. This crisis can be addressed by returning to the vast and diverse human experience embodied within Indigenous societies. On a practical level, over a third of the land area and vast oceanic regions are most directly influenced by Indigenous collectives. These areas host about 40% of the world's intact ecological systems and a massive amount of living diversity. Recognizing and upholding the rights of Indigenous societies is not just an ethical choice, but also a necessity for maintaining the equilibrium of the planet.

Nia Tero strives to build direct partnerships with Indigenous communities to support their guardianship and nurture their collective territories. In doing so, we contribute to the emergence of a new conservation model rooted in collective care and stewardship. We want to create a resilient blueprint for future conservation efforts that respects and integrates traditional knowledge systems, cultural practices, and governance structures. We aim to empower local communities to sustainably manage their natural resources, while preserving their cultural heritage – contributing to a more sustainable and inclusive future. Indigenous peoples' equitable respect and influence for the natural world can help manage our planet's resources, sustain thriving natural spaces, and foster a sense of wonder and magic that enriches our collective human experience.

The concept of dualism – or the separation of humanity and nature as distinct entities – is often blamed for our loss of connection with the natural world, which is reflected in our response to the climate crisis. Biodiversity loss is an aspect of environmental change that's often neglected in climate communications: The Earth's lands and oceans serve as natural carbon sinks that have evolved over 4.5 billion years and absorb around half of excess emissions, which have led to ocean acidification and loss of healthy soils and wetlands. Biodiversity forms our very web of life, and we depend on it for food, water, medicine, a stable climate, and economic growth.<sup>29</sup>

Land use is the main driver of biodiversity loss, primarily for food production. But climate change is playing an increasing role – altering marine, terrestrial and freshwater ecosystems worldwide and forcing animals and plants to move to higher elevations, with far-reaching consequences for ecosystems and up to one million species are threatened with extinction. On an international level, climate and biodiversity are tackled through two different agreements: the UN Framework Convention on Climate Change (UNFCCC) and the UN Convention on Biological Diversity (CBD) which work together in synergy.<sup>30</sup> The complexity and difficulty of global negotiations like the

Conference of Parties (COP) and other summits convened by the United Nations highlights the interconnectedness of climate change with numerous other social justice crises – as well as the need for intersectional solutions to tackle climate change mitigation, adaptation and justice all at the same time.<sup>31</sup> The impacts of climate change are highly inequitable - with extreme weather events and pollution disproportionately affecting low-income and communities of color. Those groups together with migrant communities, the LGBTQ+ community, the working poor and disabled groups also have less resources to build resilience against climate impacts.<sup>32</sup>

It is now widely recognized that the root of the crisis reaches into the systems level – the very way our societies and economies are structured. In recent years, there has been a surge in research into alternative economic models that prioritize sustainability and societal well-being over mere GDP growth, our predominant measure of a country's economic success which has been found inadequate for measuring human wellbeing or societal progress. GDP measures quantity but not quality – for example, GDP might increase with high production, but it doesn't reflect if the environment is degrading, if inequalities are widening, or even the value of domestic and other unpaid labor.



Figure 6: Doughnut Economics - perspective of a regenerative and distributive economy.

Among the most influential alternative economic models is Kate Raworth's Doughnut Economics, which visualizes the economy as a doughnut. The inner circle represents the foundational societal needs every person should have access to – such as food, water, and education. The outer circle delineates the ecological ceiling – highlighting the environmental limits we must not exceed to maintain planetary health. The space between these circles represents the safe and just operating space for

humanity. Instead of focusing on endless growth, Doughnut Economics emphasizes balancing the meeting of basic human needs without overshooting our planetary boundaries. This model, among others, challenges traditional economic paradigms, pushing for a shift that recognizes the interconnectedness of social and ecological systems and urging societies to aim for a balanced, regenerative, and distributive economy.

# WHAT ARE SAFE AND JUST EARTH SYSTEM BOUNDARIES?

BY TIM KELLY

EXECUTIVE DIRECTOR OF EARTH HQ, GLOBAL COMMONS ALLIANCE

In 2019, the Global Commons Alliance set up the [Earth Commission](#) – an international team of natural and social scientists – to see if it was possible to create a revolution in thinking and drive a scientific breakthrough. After three intense years, the Earth Commission has done just that. By integrating natural Earth system science and social sciences for the first time, they have devised a set of clear new boundaries – like the Paris Agreement’s 1.5°C limit for climate – for several interconnected [global commons](#): Climate, Biosphere (both intact and managed nature), Freshwater (ground and surface), Fertilizers (phosphorus and nitrogen) and Aerosol Pollutants (air quality).

Crucially, justice – between all people, between generations and between people and nature – is integrated for the first time within these boundaries. It’s the justice integration that marks an important evolution from the Planetary Boundaries framework. These new boundaries are called the Safe and Just Earth System Boundaries.<sup>33</sup>

## Safe and Just Earth System Boundaries

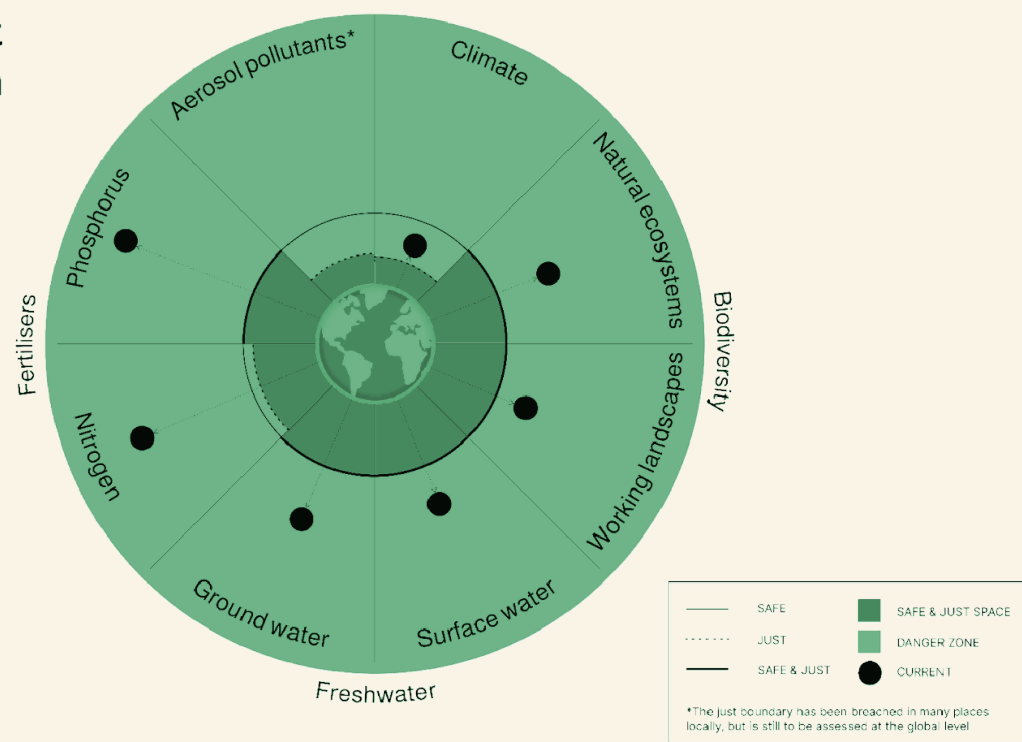


Figure 7: Limits of a Safe and Just Earth System Boundaries.  
Source: Global Commons Alliance.

In the context of this new science, Safe is defined as ensuring stable, resilient, biophysical conditions on Earth – like those of the last 10,000 years, that have allowed life on Earth, including people, to prosper. Just is defined as minimizing human and other species' exposure to significant harm from Earth-system change, and ensuring access to resources for a dignified life and escape from poverty for everyone. The safe and just Earth System Boundaries are a clarion call to action for every company, every city and every country to urgently evolve their environmental and social goals in the face of worsening inequality, destruction of ecosystems and fast approaching climate tipping points.<sup>43</sup>

Everything we hold dear is at stake. An integrated, safe and just approach in all decision making and goal setting is likely to be the only way through the current polycrisis to a liveable future for everyone – no matter where they live or how wealthy they are.



In the context of this new science, Safe is defined as ensuring stable, resilient, biophysical conditions on Earth – like those of the last 10,000 years, that have allowed life on Earth, including people, to prosper. Just is defined as minimizing human and other species' exposure to significant harm from Earth-system change, and ensuring access to resources for a dignified life and escape from poverty for everyone. The safe and just Earth System Boundaries are a clarion call to action for every company, every city and every country to urgently evolve their environmental and social goals in the face of worsening inequality, destruction of ecosystems and fast approaching climate tipping points.<sup>33</sup>

Everything we hold dear is at stake. An integrated, safe and just approach in all decision making and goal setting is likely to be the only way through the current polycrisis to a liveable future for everyone – no matter where they live or how wealthy they are.

The narratives we craft in our communications must reflect principles of justice, inclusivity, and the invaluable contribution of Indigenous and other marginalized communities. By doing so, we tap into universally understood values, building a sense of collective responsibility and highlighting our interconnectedness with each other and the world around us. Only when these principles resonate deeply with global audiences can we hope to mobilize the broadest section of society.



## 1.RE:FOCUS

New ideas for how we run our economies and solve problems need to be easily understood by everyone. When talking about these ideas, we need to not only educate but inspire – showing possibilities beyond established paradigms and helping people imagine a different future. Effective climate communication has the power to galvanize a global movement that is motivated by shared values, and driven by a common vision of a just and sustainable world.

Bridging the knowledge-action gap through effective climate communication is key to reimagining our collective futures in the face of climate change. When we successfully translate scientific knowledge into accessible and engaging narratives, we empower individuals and communities to envision alternative futures and understand the role they can play in bringing them about. This is not just about disseminating data – but about crafting stories that connect the global climate crisis to local realities to inspire action.

## 1.2 IT'S ALL CONNECTED: PEOPLE AND THE PLANE

---

“We can register what is happening with satellites and scientific instruments, but can we register it in our imaginations, the most sensitive of all our devices?”

- **Bill McKibben, environmentalist and author, in *What the warming world needs now is art, sweet art*, Grist**





## 1.RE:FOCUS

### 1.3 ENTERING UNCHARTED TERRITORY

by João Talocch

Network Director - Americas Global Strategic Communications Council

When the IPCC's special report on 1.5°C was released in 2018, it presented a concept called carbon budget, a set amount of additional greenhouse gas emissions that could be added to the atmosphere while still limiting the Earth's warming to the recommended 1.5°C increase.<sup>34</sup> The idea of a carbon budget is key as for the atmosphere, the annual rate of emissions doesn't matter. What matters is the amount of carbon accumulated over time, which drives warming. If the planet was a bathtub – with our 1.5°C target constituting the edges and carbon making up the water flowing out of a tap – we'd be very close to flooding the entire bathroom. Slowing the flow of water after the tub is full won't stop it from overflowing. This means gradual emissions reductions won't stop us from breaching the limits needed to avoid catastrophic impacts.

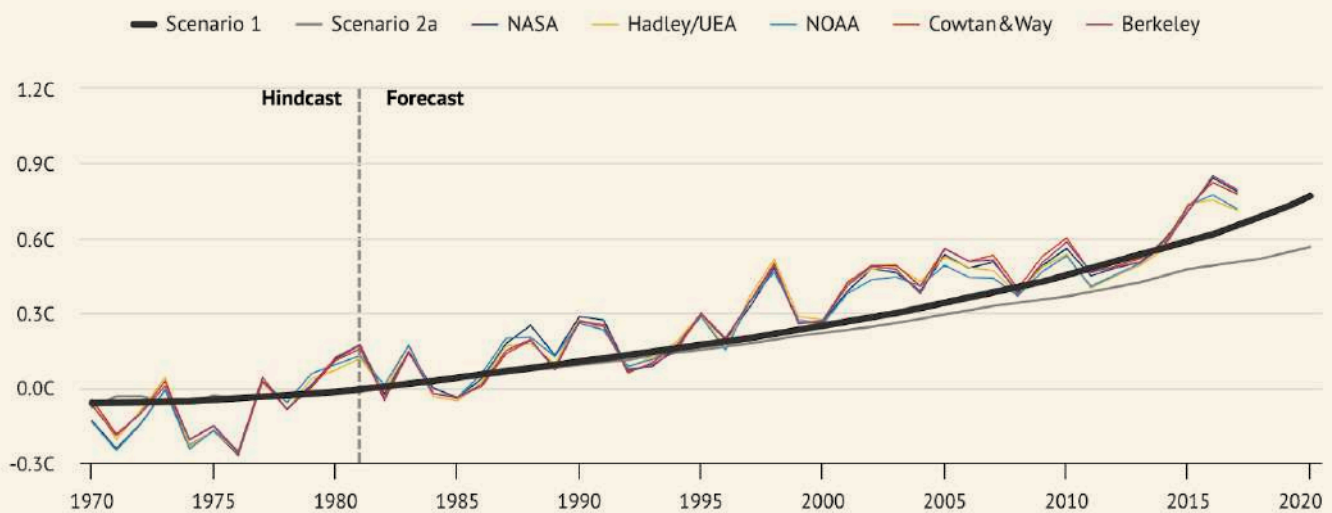
At the time of this report, this message was translated to “we have 12 years to stop climate change”. Since then, the carbon budget has been reduced by half and global emissions continue to grow. This should now be read as “we don't have another minute to lose”. It is important to note that these are not new projections. The temperature rise of recent decades is not a surprise to climate scientists, or the fossil fuel industry: it is exactly what they projected would happen if fossil fuels continued to be burnt at an increasing rate. For example, a 1981 study introduced a climate model that accurately predicted how temperatures would rise over the following 40 years, if there was a fast growth in fossil fuel use – and those projections became reality.<sup>35</sup>

---

“Before it's too late, we need to make courageous choices that will recreate a strong alliance between man and Earth. We need a decisive 'yes' to care for creation and a strong commitment to reverse those trends that risk making the situation of decay irreversible.”

- Pope Benedict XVI, 2007 speech to youth in Loreto, Italy





CB

Thick line shows projected temperatures in a scenario with fast growth in emissions; coloured lines shows actual temperature data

Figure 8: Comparison of different scenarios of temperature variation across time.  
Source: IPCC First Assessment Report.

- **No exploration of new fossil fuels reserves (see page 14 of this IEA report)**
- **Phase out existing fossil fuels by 2050. \***
- **End deforestation before 2030.**

\* Unextractable oil, fossil methane gas and coal reserves are estimated as the percentage of the 2018 reserve base that is not extracted to achieve a 50% probability of keeping the global temperature increase to 1.5°C. **A 2021 study published in Nature** estimates this to be 58% for oil, 56% for fossil methane gas and 89% for coal in 2050.

Note: Achieving these 3 core goals demand hundreds of actions across various sectors (see image below). But these transitions must be anchored in achieving the above mentioned goals.

Figure 11: Three core goals for decarbonization in the fossil fuel industry.

## 1.RE:FOCUS

Climate models have accurately predicted how temperatures would rise if fossil fuels continued to be burned.<sup>8</sup> But beyond intangible scientific models, climate change is experienced by many people first-hand – in most places across the world, all that one needs to do is step outside. July 2023 will go down in the record books as the hottest month in 120,000 years,<sup>36</sup> and 2023 as the hottest year in record.<sup>37</sup> Temperature records were shattered in the US, Africa, China and Europe. Oceans in Florida and the Gulf of Mexico got hot-tub hot. Record rain and fatal flooding spread across South Korea, Japan, China, India, Pakistan and the US. Antarctic ice continued to be at a record low for the Southern winter – a one in thirteen million chance event.

## 1.3 ENTERING UNCHARTED TERRITORY

lasting into 2024, it's likely the records won't end there. Among almost daily news of extreme weather events, UN Secretary General António Guterres declared that “The era of global warming has ended, and the era of global boiling has arrived”.<sup>36</sup>

### Fossil fuels and big tobacco

Imagine if a company developed a product that people couldn't imagine living without, that had to be burned in order to be used, and provided a level of enjoyment and comfort – making it easy to market and sell. Now imagine that this industry knew that over time, their product would deteriorate people's health and cause irreversible damage to our planet. With this



Figure 9: It's time to Act - E.ON UK, in YouTube.

These events are driven by human activity since the 1850s, and mostly since the 1990s – when emissions rose by 60%. And with the current El Niño event – a naturally occurring climate pattern causing warmer weather which exacerbates the effects of climate change – likely

knowledge in hands, the company decided to increase its marketing efforts and actively invest massive amounts of money in lobbying and public relations to create an even greater dependency on their products and public and political conditions for them to be highly accept-

## 1.RE:FOCUS

ed and used by society. Would the deaths and sickness that result from this be considered unfortunate events?

In almost all aspects, the stories of the tobacco industry and the fossil fuel industry go hand in hand, with one key difference: while tobacco's harms fall mostly on individual users (see 2.1), climate change – driven by the fossil fuel industry – impacts mostly the people that have benefited the least from the fuels. Ultimately, it threatens most forms of life across the entire planet. These impacts are not unfortunate – they are the result of recklessness and greed.

It is imperative to communicate that the climate impacts we are living through now – and the ones expected for the future – are not an accident. They are the result of deliberate acts by a small number of industries and governments, by establishing technological and political systems that support and depend on those industries. It is also not enough to only draw a connection between extreme weather events and climate change: It is imperative to hold the com-

## 1.3 ENTERING UNCHARTED TERRITORY

panies, CEOs, and politicians who are holding back progress accountable – including by paying for the damages they have caused, and for the investments necessary to deliver a global just energy transition.<sup>38</sup>

According to the IPCC, about 58% of all emissions of warming greenhouse gasses come from energy and industry sectors, and 22% from farming and deforestation, with the remainder caused mainly from farming and deforestation, transport and buildings.<sup>8</sup> Nearly all of those industrial emissions are linked to the burning of conventional fossil fuels.

We know the solutions to the problem. In scientific terms, it means halving global emissions by 2030 – using a 2010 baseline – and reaching net zero by 2050.<sup>34</sup> But putting the numbers this way doesn't mean much to most people without a background in climate science. It is also an opportunity for never ending debates about pathways – with room for the unproven, expensive and less impactful preferences of the fossil fuel industry.

### **We have most of the arguments and data that would be needed to build a winning response**

---

but there are a few missing elements:



how to decide the moment is appropriate



the processes through which the field can coordinate and align around key messages



how these messages get packaged and delivered to the most important audiences and decision makers in a short amount of time.

Figure 10: Missing elements to consider when building a better argument for climate change.

## 1.RE:FOCUS

As climate communicators, we need to get better at translating what the necessary change in direction looks like in everyday terms. While there is no silver bullet and solutions need to be implemented across almost every industry, there are some core actions that must become priority – and thus most urgently communicated and repeated.

Those against these key measures will argue that they will hamper development, and are too difficult or costly to implement. But those arguments are incorrect – communicators need to remind audiences that the energy transition is a shift from a concentrated, expensive, polluting commodity-based system, to an efficient, manufactured, technology-driven system that offers continuously falling costs, is available everywhere and relies on renewable energy and resources.<sup>39</sup> This transition has many additional benefits – from mitigating climate change and its impacts to job creation, better social and environmental conditions, the creation of stronger economies and many more.<sup>40</sup>

Knowing its days are numbered, the fossil fuel industry is going to spend the last of the 2.8 billion dollars in daily profits it made over the last 50 years,<sup>41</sup> making as much money from its assets as it possibly can. Old friends may start acting as enemies going forward,<sup>42</sup> as just happened with Mobil's new ads, which are a not-so-subtle attack on EV. These are industries that have worked together for about a century to hook the planet on fossil fuels. But while the industry has the influence and money to buy almost everything they want, they also know that they have a weak hand, as they cannot pay to change the basic physics and chemistry that rule Earth's atmosphere, which establish that their products must be phased out. They cannot buy the truth.

In his book, *The Righteous Mind*, moral psychologist Jonathan Haidt argues that "the fact that we're social creatures is key to

## 1.3 ENTERING UNCHARTED TERRITORY

understanding why we make the moral decisions we do. We act 'morally' primarily because we fear the social ramifications of getting caught acting immorally – we behave in ways we know we could justify to others if we had to. In this sense, the purpose of moral reasoning is to help us advance socially, whether by maintaining our reputations as moral individuals or persuading others to take our side in conflicts". This means that one of the most critical steps in communicating the urgency of stopping the exploration of new fossil fuels – or the imperative to phase them out – is to remove the social license of the industry – to make it immoral and socially unacceptable to support it.

This is where smart, creative, and inspiring communications have a big role to play. Poet and writer Maya Angelou once said "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel". Climate communications should balance the use of scientific data, economic analysis and other facts as the main argument for climate action, and start to communicate in ways that compels people to invest their attention, emotion, and action into the cause.

Climate advocates do not have the resources to compete on the scale of polluting industries' outreach – placing ads across TV, radio, papers, airports and public transit on a daily basis for years in a row – or to sponsor major sports events or cultural institutions. Therefore, it's critical that climate communications are done in creative and strategic ways. Advertisers and entertainers know how to do this well, which is why many climate campaigns are starting to target these industries. It is also why philanthropy and other funders should massively expand the amount of resources available for strategic climate communications.

It is impossible to deny we'll live through a growing number of extreme climate events in the coming years. These events are hard to predict

## 1.RE:FOCUS

and can have many forms - from extreme weather events to health emergencies to wars to supply chain breakdowns to financial crises and so on. Climate communicators need to be ready to respond to these moments, which can both open windows of opportunity for the acceleration of critical demands, but also set back many of the advances secured in the past years. The initial months of COVID-19 and the invasion of Ukraine, were moments when the climate community took a long time to respond, either missing opportunities (COVID-19) or losing ground to the fossil fuel industry (Ukraine invasion), which took no time to flood the media and halls of power with their influence and narratives.

Communicators have a critical role to play in these moments. We have most of the arguments and data that would be needed to build a winning response – but there are a few missing elements:

- How to decide the moment is appropriate
- The processes through which the field can coordinate and align around key messages
- How these messages get packaged and delivered to the most important audiences and decision makers in a short amount of time.

In order to do this, the movement needs to have the capacity to do horizon scanning – monitoring and preparing different plans of action for possible scenarios, while also developing systems and protocols that enable a variety of stakeholders to collaborate and respond quickly without jeopardizing other work that needs to happen. To reach these conditions, it is important that additional funding is dedicated to this but also that existing resources are allocated in ways that allow for flexibility, change & innovation.

## 1.3 ENTERING UNCHARTED TERRITORY

Extreme climate events are mostly predictable moments, and also periods when audiences are more open to climate messages and related calls to action. It is important for climate communicators to understand how to better collaborate around these moments - which generate opportunities for the advancement of our goals, but also present unique and immediate challenges. Increasing local and regional collaboration around responding to these events should be made a priority to create cohesion and allow for roles and responsibilities to be understood and divided amongst different groups.<sup>43</sup>

While climate change predictions present an increasingly grim outlook, numerous leading scientists have emphasized that stopping climate change is far from hopeless. Experts are increasingly concerned about the spreading sentiment that nothing can be done, and thus action is futile. Although climate change effects are escalating, the situation is not beyond hope if prompt actions are taken. Recent reports from the United Nations Intergovernmental Panel on Climate Change also stress this – indicating that while climate impacts are worsening, the level of disruption is contingent on the quantity of fossil fuels burned.<sup>44</sup>

Despite the daunting challenge of limiting global heating to 1.5 degrees Celsius, there's a general consensus that temporarily exceeding this limit doesn't mean we should give up hope. Even as the threat escalates, evidence-based optimism persists – rooted in the knowledge that human activities can both exacerbate and mitigate this crisis.

## CHAPTER 2 – RE:WIND

# HOW WE GOT HERE

---



## 2.RE:WIND

**T**he climate narratives we have inherited are shaped by decades of misinformation and greenwashing – a legacy where scientific consensus has been overshadowed by strategic manipulation. Our understanding of environmental issues has been influenced by powerful entities seeking to downplay the severity of the crisis, promote green initiatives to distract, or shift the blame onto individuals. This historical distortion has created a landscape where the true complexity and urgency of the climate crisis can be obscured, making it all the more essential for us to cut through the noise and construct a more accurate, informed and action-oriented narrative around the climate crisis and what needs to be done to solve it.

In recent years, greenwashing has become increasingly pervasive, evolving into a sophisticated marketing strategy used by many companies to capitalize on the growing environmental consciousness of the public. Greenwashing happens when companies make inflated claims about their sustainability practices – motivated by the appeal of increased sales and a bolstered image – even when their actual sustainability commitments are negligible or non-existent. From vague eco-friendly labels

to misleading advertisements, large-scale greenwashing campaigns are used by individual businesses as well as major companies, including the fossil fuel industry.

The consequences of greenwashing hinder genuine sustainability efforts, erode public trust, and stymie meaningful climate action. As communicators, consumers and stakeholders, it's crucial to discern between genuine green initiatives and corporate posturing – instead demanding greater transparency and accountability from businesses.





## 2.RE:WIND

### 2.1 CLIMATE MISINFORMATION

Over 99.9% of scientists agree that the climate crisis is real and caused by humans – a consensus which is not necessarily reflected in public consciousness and media discourses, where misinformation and disinformation about climate change persist. For decades, the fossil-fuel industry has exploited the public's misunderstanding of scientific language for its benefit, leading to confusion and doubt around climate change.<sup>45</sup> Additionally, as outright denial becomes untenable, it has shifted tactics, deflecting focus to personal carbon footprints – a concept popularized by BP – and spreading misleading narratives about renewable energy.<sup>46</sup>

---

“Outright denial of the physical evidence of climate change simply isn't credible anymore. So they have shifted to a softer form of denialism while keeping the oil flowing and fossil fuels burning, engaging in a multipronged offensive based on deception, distraction, and delay. This is the new climate war, and the planet is losing.”

- **Michael Mann, *The New Climate War***<sup>58</sup>

In an effort to combat the misinformation challenge, companies are starting to take action. One of these examples is Meta, who introduced a climate science center in Facebook and expanded its flagging system for climate-related posts, as Data for Good director Laura McGorman explains:



# HOW META'S CLIMATE SCIENCE CENTER FIGHTS MISINFORMATION

BY LAURA MCGORMAN  
DIRECTOR OF DATA FOR GOOD

Our [Climate Science Center](#) is a one-stop resource available in more than 150 countries, connecting people on Facebook with science-based news, approachable information and actionable resources from the world's leading climate change organizations. The center includes detailed deep dives covering the basics of climate-related subjects, tips for spotting misleading information, and ways for individuals to take action.

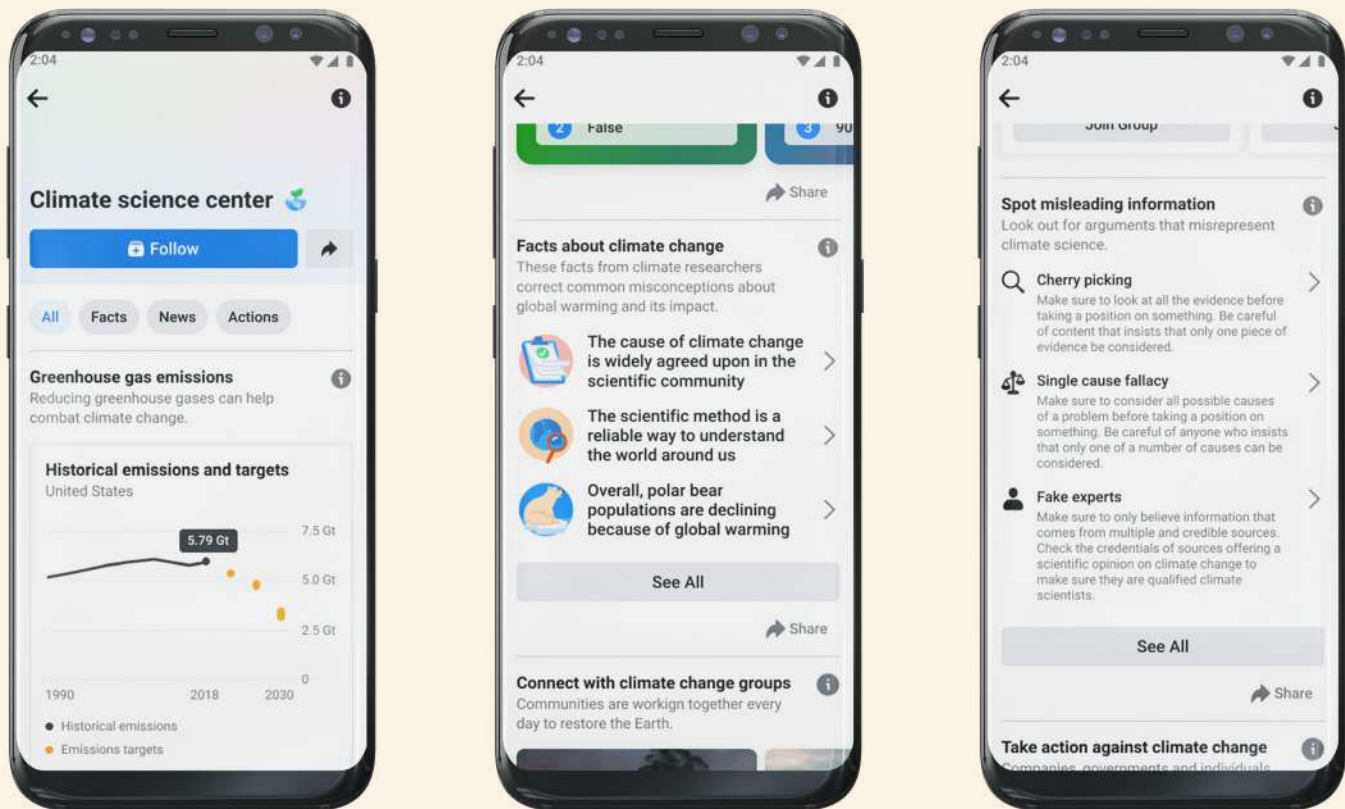


Figure 15A: Examples of Meta's Climate Science Center in fighting misinformation.

At Meta, we understand the importance of addressing complex discussions about climate change on our platforms – they are crucial for building consensus and finding solutions. To achieve this, we take a comprehensive approach to climate-related content, ensuring that people are educated with accurate information while countering misinformation responsibly. Protecting freedom of expression, engaging in research, and promoting transparency are essential aspects of our approach.

While climate change misinformation is a small portion of the overall content, it can surge during high-profile discussions, like during extreme weather events. To combat this, we collaborate with over 90 independent fact-checking organizations in more than 60 languages. Our partners review a wide range of climate-related claims and debunk false information that challenges the existence and impacts of climate change, misrepresents scientific data, or distorts mitigation and adaptation efforts.

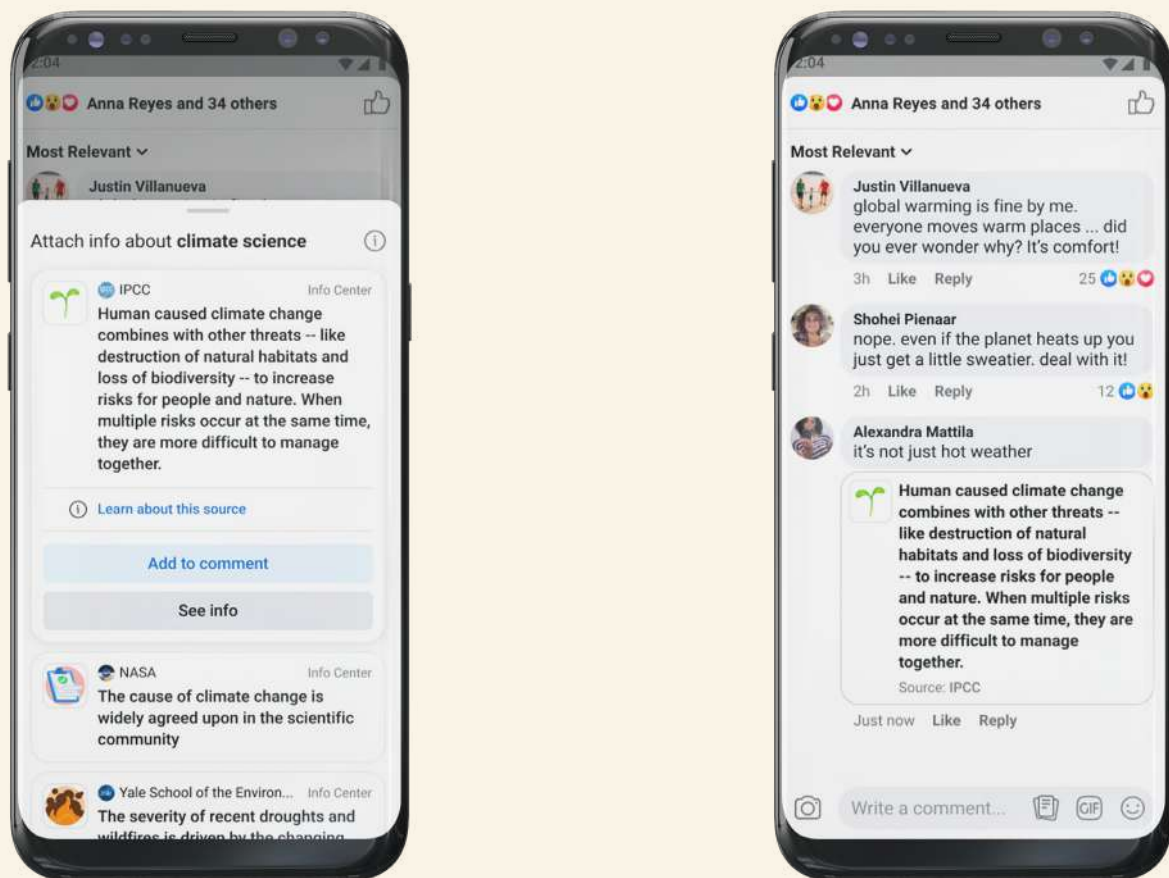


Figure 15B: Meta's Climate Science Center fighting misinformation through the provision of additional content from trusted sources.

When content is rated as false by fact-checkers, we add warning labels and reduce the visibility of such content to limit its spread. We also don't recommend or approve ads with false claims and take measures against accounts and groups that repeatedly share false information about climate science.

We have taken additional steps to enhance our fact-checkers' capacity: Our Climate Misinformation Grant program supports projects that unite fact-checkers, climate experts, and other organizations to combat climate misinformation. We also use keyword detection to gather climate-related content in one place – facilitating fact-checkers in identifying potential misinformation during breaking news events. We recognize that some climate information may be misleading or confusing without containing verifiable false claims. While we do not restrict this type of content, we focus on educating and informing people with authoritative information.

By collaborating with esteemed climate organizations like Monash Climate Change Communication Research Hub, Cambridge Social Decision-Making Laboratory, and Yale Program on Climate Change Communication, we support the dissemination of reliable climate information. We are committed to making climate-related data and research more accessible through innovative tools and research efforts. Our Ad Library provides an extra layer of ad transparency, requiring all active ads to be available in the public domain, and providing additional information for ads related to social issues, elections, politics, and advocacy around energy and climate change.

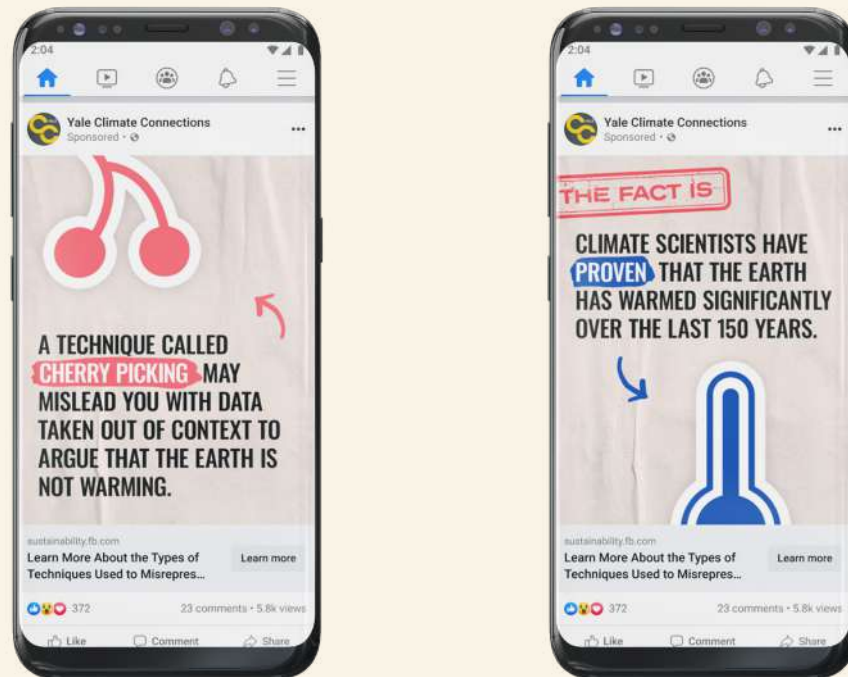


Figure 15C: Examples of Meta's Climate Science Center in fighting misinformation.

Source: Meta, 2022

Despite promising measures like Meta's, the problem continues to run deep. The fossil fuel industry has long been a master of using advertising and communications to shape public opinion and political policy. For instance, between 2008 and 2018 the oil and gas sector spent around 1.3 billion dollars on political activities, of which around 64% is directed to advertising and promotion.<sup>47</sup> These tactics continue until this day: a recent DeSmog investigation found that fossil fuel companies have been working with influencers to promote their products and exaggerate environmental credentials<sup>48</sup> (see 8.3), and a recent [ExxonMobil ad](#) featured a number of people caught up in cables struggling to go about everyday life, implying that using electric vehicles is inconvenient and restrictive.

comes to getting their message across and competing with misinformation coming from the fossil fuel industry.<sup>51</sup>

Through a vast range of misleading advertisements, the fossil fuel industry has attempted to manipulate public and policy perception, casting doubt on the reality, cause, severity, and solvability of climate change. The use of "advertorials" – ads disguised as editorials – in prominent publications further propagated their denial narrative.<sup>52</sup> Some ads sought to create doubt about the reality and human contribution to climate change, framing it as mere theory rather than scientific fact.<sup>53</sup> Others downplayed the severity of the crisis, using headlines like "reset the alarm" to suggest the issue wasn't as urgent as made out to be.



Figure 16: ExxonMobil Anti-EV Ad.

Fossil fuels also have a considerable impact on media narratives and policy. The industry invests billions of dollars each year in advertising, public relations, and lobbying efforts to influence climate policy.<sup>49</sup> Meanwhile, non-governmental organizations working to promote climate action often operate with far fewer resources and funding constraints.<sup>50</sup> This means that they are at a disadvantage when it

Others exploited the notion of "scientific uncertainties" to question the extent of human involvement in climate change.<sup>51</sup> Another selection of ads emphasizes the potential economic risks associated with climate action, diverting attention from environmental impacts towards financial concerns,<sup>51</sup> and building a narrative of dependence on fossil fuels for economic growth.<sup>54</sup>

## HOW THE FOSSIL FUEL INDUSTRY BLOCKS CLIMATE ACTION

BY JOÃO TALOCCHI

NETWORK DIRECTOR AMERICAS AT GLOBAL STRATEGIC COMMUNICATIONS COUNCIL

The fossil fuel industry had developed some of the most precise climate models themselves, back in the 1970s.<sup>55</sup> But instead of using their knowledge and resources to advance new forms of energy and address the future destruction that they knew their products would end up creating, the industry chose to hide this information and actively worked to discredit similar findings by other scientists - see examples below.

Their strategy is proven very lucrative. The oil and gas sector has seen record profits over the past two years, both in total and for individual companies. The IEA estimates a staggering \$4000 billion in profits were made by the entire industry in 2022, compared to typical annual estimates of \$1500 billion.<sup>56</sup> The five biggest international oil companies alone reported a combined \$199bn in net profits in 2022. National oil companies profited the most. Saudi Aramco earned a staggering \$161 billion. But now that we are living through the reality of an already much warmer world, will the industry use their massive resources to solve the problem, prioritizing survival over profit? It doesn't seem like it.

Oil and gas fight hard against the proposed solutions to the climate crisis. Instead, they back initiatives which are more expensive, or less impactful, than transitioning to renewables, ultimately resulting in the climate impacts landscape we see today. Some of their empty promises include carbon capture (at the point of emissions, or captured from air), bioenergy with questionable carbon accounting, hydrogen made from fossil fuels and many blended forms of these. The tempting narrative they offer is a maintenance of fossil fuel sales and usage that also solves the emissions problem – but the majority of their solutions have failed, or are failing, to bend the curve. As these solutions fail to deliver, the industry moves on to either deny their interest in change or our ability as a society to change [\(see 5.2\)](#).

As temperature records were shattered around the world, ExxonMobil's CEO Darren Woods position was “Exxon is a molecule company, not an electron company”.<sup>57</sup> TotalEnergies CEO, Patrick Pouyanne said: “Today, our society requires oil and gas, there is no way to think that overnight we can just eliminate all that”.<sup>58</sup> But is everyone that works or has worked at the fossil fuel industry to blame? No. It's important to differentiate people that make a living in a global industry from the industry itself - and those with the power to determine its future. For the past decades, various individuals and organizations have attempted to work with the fossil fuel industry to address the climate challenge. Unfortunately, these efforts have mostly failed.<sup>59</sup>

A number of reports have exposed that fossil fuel companies have known about climate change for decades, but decided to ignore, downplay or even deny their findings. Naomi Oreskes and Erik Conway's book *Merchants of Doubt* chronicles how a small group of scientists was hired by various industries, including the fossil fuel industry, to cast doubt on scientific consensus through cherry-picking data, questioning the integrity of climate scientists, and creating fake grassroots campaigns to sow confusion.

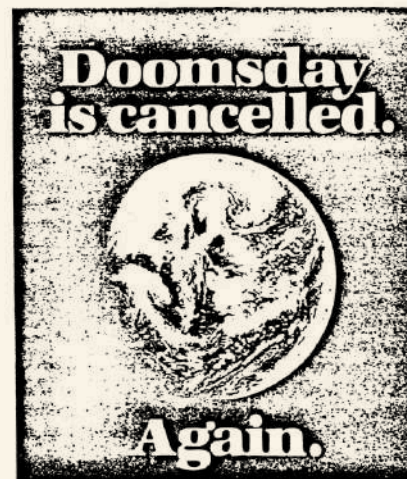
ism. Unfortunately, those efforts were incredibly successful in shaping public opinion and delaying meaningful action on climate change.<sup>60</sup>

In *The New Climate War*, Michael Mann describes the sophisticated deflection campaigns undertaken by those aiming to slow down climate action, echoing the diversion tactics used by the gun lobby, tobacco industry, and beverage corporations. The aim is to shift the responsibility for the climate crisis from corporations to individuals, and position perso-

## Who told you the earth was warming... Chicken Little?



**C**hicken Little's hysteria about the sky falling was based on a fact that got blown out of proportion. In the case with global warming, there's no hard evidence it's occurring. In fact, evidence the Earth is warming is weak. Proof the carbon dioxide has been the primary cause is nonexistent. Climate models never accurately predict for future global change. And the underlying physics of climate change are still wide open to debate. If you care about the earth, but don't want your imagination to run away with you, make sure you get the facts. Write Informed Citizens for the Environment, P.O. Box 1833, Grand Forks, North Dakota 58206, or call 701/745-4573. We'll send you the facts about global warming.



The twentieth century has seen many predictions of global destruction. In the 1850's, some scientists claimed we were in the middle of a disastrous warming trend. In the mid 1970's, others were sure we were entering a new Ice Age. And so on. It's the same with global warming. There's no hard evidence it is occurring. In fact, evidence the Earth is warming is weak. Proof that carbon dioxide has been the primary cause is non-existent. Climate models cannot accurately predict far-future global change. And the underlying physics of the climate change are still wide open to debate. If you care about the environment, but don't care to be pressured into spending money on problems that don't exist, make sure you get the facts. Write Informed Citizens for the Environment, P.O. Box 1833, Grand Forks, North Dakota 58206 or call 701/745-4573. We'll send you the facts about global warming.



Both ads from the Informed Citizens for the Environment, 1991

Figure 17: Ads from the Informed citizens for the Environment, 1991.

Other historical examples of misinformation campaigns include tobacco industry leaders hiding the dangers of smoking in the 1960s, and the character assassination faced by Rachel Carson following her revelation of DDT's environmental dangers in her influential book *Silent Spring*. The latter event spurred industry groups to label her as "radical", "communist," and "hysterical," unveiling the misogyny now inextricably linked with climate change denial-

nal actions like veganism or less air travel as the main solutions to climate change. This overemphasis distracts from the urgent need for government policies to crack down on corporate pollution, and drives a wedge into the climate advocacy community through the use of advanced cyber tools like online bots and trolls, reminiscent of those seen in the 2016 US presidential election.

Fossil fuel interests have also done everything possible to block subsidies and incentives for their competition - renewable energy - and they've had a lot of success doing so. That has led to a perverse incentive structure in the energy marketplace, through which we are artificially boosting the very energy sources that are hurting the planet, while devaluing those that can save it.

Fossil fuel companies including ExxonMobil, Shell and BP have a history of working with groups like the Heartland Institute and Competitive Enterprise Institute to challenge climate change science – using newspapers, debates, and even fake science articles to argue that climate change data was too unclear and unreliable to attribute it to human activity. The Koch brothers, known fossil fuel business owners, played a big role in this by hosting the first conference denying climate change in 1991. This widespread denial led the public to think that more people don't believe in climate change than actually do – making people less likely to talk about it or put pressure on lawmakers.<sup>61</sup>

### FOSSIL FUEL INDUSTRY LOBBYING: BY THE NUMBERS

**\$125M**

Amount spent by industry on lobbying in 2022

**\$93M**

Amount spent by industry on lobbying so far in 2023

**27x**

Greater amount spent on lobbying by fossil fuel industry vs. climate advocacy groups from 2008–2018

Figure 18: Monetary impacts of climate change and the role of fossil fuels in contributions and lobbying.







## TELL THE TRUTH.

Spin is deceit. Expect your opponents to lie and mislead – don't do it yourself. The truth is more powerful, and it's the only ethical choice. You can simplify the truth but do not distort it. If you make mistakes, quickly admit them and move on.



## FIGHT FALSEHOOD AND DISINFORMATION IMMEDIATELY.

If you don't, it can stick in people's minds, enabling a big lie to become "truth." To fight it, double down on all of the directives above. If a journalist is regurgitating disinformation, complain respectfully to them, and their bosses, too.

Figure 19: David Fenton's Communication Rules for Activists.

In recent years, fossil fuel lobbyists have been found to set up deceptive coordinated groups masking as grassroots efforts to undermine climate policy – a phenomenon termed Astroturfing. In the western United States, the Western States Petroleum Association secretly operated a number of astroturf front groups,

such as “California Drivers Alliance” and “Washington Consumers for Sound Fuel Policy”. These groups were used to run PR campaigns influencing policy decisions – creating the perception of public support for oil companies, and opposition to progressive climate policies.<sup>62</sup>



Figure 20: The Troll Army of Big Oil, by Climate Town.

The industry has also been known to fund politicians who are friendly to their interests<sup>63</sup> – such as Donald Trump, who withdrew the US from the Paris Agreement during his US presidency.<sup>64</sup> Fossil fuel companies have also been actively working against ESG and emissions reduction regulations, lobbying politicians to block climate legislation.<sup>63</sup> Recently, US Republicans voted to repeal a rule that allows retirement funds to consider climate change in their investments, claiming that it would have a negative impact on tax revenue and employment.<sup>65</sup> In Texas, Governor Greg Abbott signed a law prohibiting investment in businesses that boycott fossil fuels<sup>66</sup> – effectively banning investors from having a Net Zero strategy. These efforts are backed by groups like the Texas Public Policy Foundation, which is funded by oil and gas companies.<sup>67</sup>

Until this day, the fossil fuel sector spends millions on ads influencing public opinion: between September 2022, in the run-up to the COP27 climate conference in Sharm El-Sheikh,

Egypt, until after the conference at the end of November, companies spent \$3-4 million on Meta alone.<sup>68</sup> Researchers counted 3,781 ads during this time, the majority driven by a small number of groups – in particular Energy Citizens, a PR group of the American Petroleum Institute. Ads included misleading claims on the climate crisis and Net Zero targets, pushing the necessity of fossil fuels, as well as outright climate denial from groups such as PragerU and The Heartland Institute. From July 2022, a spike for the hashtag #ClimateScam was observed on Twitter, which was actively recommended for organic searches of 'climate' as well as posts including #climate.<sup>68</sup>



### THE ADVERTISING INDUSTRY SPEAKS UP AGAINST CLIMATE MISINFORMATION

Ahead of COP27, companies and brands including IPC, Omnicom, VirginMedia, Sky and Patagonia signed an open letter to delegates of COP27, demanding that they take action against climate misinformation. The letter followed a survey by Climate Action Against Disinformation and the Conscious Advertising Network, which analyzed common false climate beliefs around the world. It found that there is a significant gap between public beliefs and the science on basic issues such as whether climate change exists and whether it is mainly caused by humans. A large number of respondents also believed that fossil gas was a climate-friendly source of energy (39% of US citizens and 40% of Brazilians, compared to only 14% of UK respondents). The highest share of people who believed at least one misinformation statement was found in India, and the lowest in the UK.<sup>69</sup>

Industry front groups like the American Legislative Exchange Council (ALEC) and the Heartland Institute have been particularly active in sabotaging efforts at the national and state levels to promote renewable energy.<sup>70</sup> The watchdog group SourceWatch describes ALEC as a "corporate bill mill" through which "corporations hand state legislators their wish lists to benefit their bottom line".<sup>71</sup> In recent years, fossil fuel corporations such as ExxonMobil, Shell, and BP have pulled out of ALEC, concerned about increased public scrutiny of their funding activities.<sup>72</sup>

In a joint article, Susan Joy Hassol and Michael Mann call attention to a pattern of disinformation by certain conservative media outlets, particularly those under the Murdoch media empire, during extreme climate events.<sup>73</sup> These outlets have repeatedly attributed the devastating effects of extreme heat and drought – as

seen in the 2019/2020 "black summer" of Australia and the 2020 wildfires in western US – to natural causes, forest management policies, or even arson,<sup>74</sup> obscuring the true link between the burning of fossil fuels and global heating. These misleading narratives serve to misdirect public understanding and undermine policy action.<sup>73</sup>

---

"These coal and oil barons say they're just supplying people with what they want. But we don't want fossil fuels. What we want is cold beer and hot showers, services like convenient ways to get around and good food to eat. If we can get those in a way that doesn't destroy our planet's life-support system, we'd surely prefer that."

**-Susan Joy Hassol and Michael Mann, *Now Is Not the Time To Give in to Climate Fatalism, Time***

Since COP27, misinformation hasn't gone anywhere: Despite Google's ban on ads containing climate denial, Ben Shapiro's media outlet The Daily Wire bought an estimated \$60 million worth in Google ads to advertise search terms such as "climate change is a hoax" and "why is climate change fake – meaning that Shapiro's stories would come up at the top of those searches.<sup>75</sup> And the influence of the fossil fuel industry is not only seen in media and policy, but also research itself. A study by Data for Progress found that six fossil fuel companies provided over \$700 million in funding for climate research to 27 US universities between 2010-2020, including leading institutions like MIT, Stanford and Harvard. The authors suggest that this funding can influence research programs and policies towards industry-preferred climate solutions such as carbon capture, biofuels & hydrogen.<sup>76</sup> At present, there is a lack of transparency with regards to industry funding sources.

### CASE STUDY: EXXONMOBIL KNEW ABOUT CLIMATE CHANGE SINCE THE 1970S

In 2005, investigative journalists discovered internal company memos indicating that Exxon has known about the potential effects of fossil fuel products on global warming since the late 1970s, and predicted “dramatic environmental effects before the year 2050”. In doing so, ExxonMobil scientists showed a high level of scientific accuracy - 63-83% of their climate projections were accurate in predicting subsequent global warming. Instead of taking action to decarbonize, ExxonMobil worked hard to overemphasize uncertainties in scientific consensus and feign ignorance about the role of human activity in global warming – failing to address the possibility of fossil fuels becoming stranded assets as the world takes action on climate change.<sup>77</sup>

Today, a number of cities, states and countries are suing fossil fuel companies for misleading the public whilst knowing about the threat climate change poses. The European Parliament and US Congress have held hearings holding fossil fuel giants accountable, and grassroots groups like #ExxonKnew and #ShellMustFall are gaining traction, working to dismantle the industry’s self-portrayal as part of the solution.<sup>77</sup>



While discourses around climate change have evolved, strategies for delaying ambitious climate action have, too. While outright climate denial, skepticism and attacks on scientists are not common anymore, they have been replaced with climate delay – accepting the reality of climate change but raising doubts of the possibility of mitigation.

The four discourses of climate delay<sup>78</sup> include:

- Redirecting responsibility by focusing on individual rather than collective actions, obscuring the role of powerful actors, such as BP’s ‘Know your Carbon Footprint’ campaign. This strategy includes directing attention away from companies and towards large emitters like China, and arguing that others will take advantage of those who lead on climate action as per the free rider effect.
- Pushing for non-transformative solutions, in particular technologies which are not proven to work at scale (such as direct air capture and zero-carbon planes), ‘clean’ fossil fuels (as advertised by the American Petroleum Institute), pointing towards recent but comparatively small advances in lowering emissions, and dismissing restrictive measures (e.g. frequent flier levies) over voluntary policies.
- Emphasizing the downsides of climate action to employment, prosperity and ways of life. More recently, fossil fuel companies have appealed to social justice, framing the shift to renewable energy as costly and burdensome, threatening living standards. Often companies will feature individuals from marginalized groups in advertisements, implying that climate policies threaten livelihoods and living standards, a phenomenon coined ‘wokewashing’.
- Surrendering by arguing that large-scale socio-economic transformation is impossible. The extreme form of this is doomism - the belief that catastrophic climate change is already locked in, and that all that society can do is adapt to climate impacts.

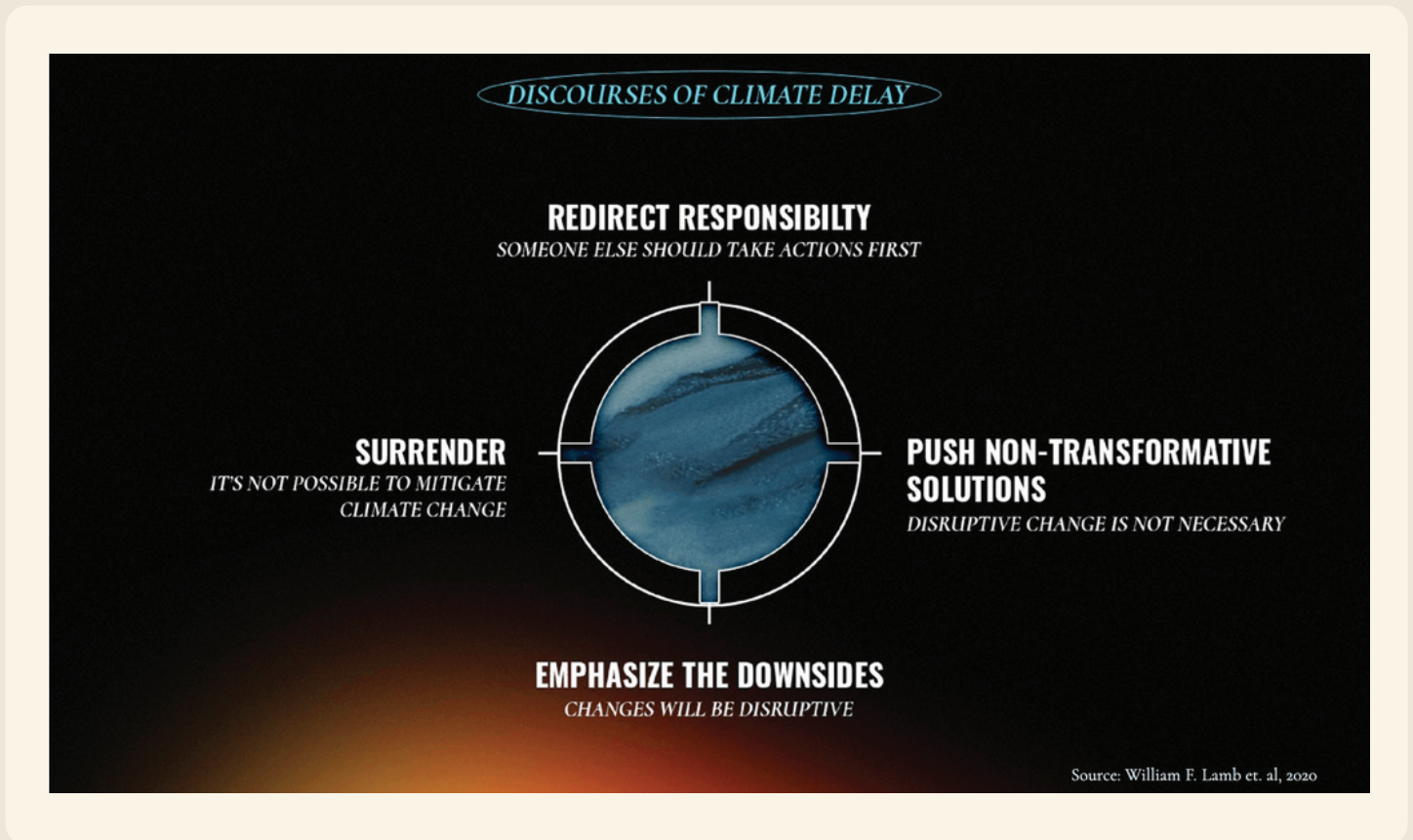


Figure 21: The four discourses of climate delay.

Discourses of delay are often used in combination, such as the pervasive overpopulation argument - directing attention away from historically high emitters towards developing countries (redirecting responsibility), and arguing that CO<sub>2</sub> trajectories in those countries are already locked in (surrender). This argument ignores the efforts of developing countries to reduce their emissions and fails to address the root causes

of climate change – including the industries, countries and individuals responsible for the majority of carbon emissions.





Figure 22: A practical example of discourses of delay is Shell's "Make the Future" ad, which features a woman named Shweta, who drives a truck powered by Shell's gas and speaks about the need to transition to cleaner fuels. The ad suggests that Shell is supporting women's empowerment and gender equality by providing women with access to clean and efficient fuels.

Source: *Truck Driver | Great Things Happen When We Move #MoveWithShell*, in YouTube.

While the ad highlights the potential benefits of using LNG as a cleaner alternative to diesel, critics have pointed out that it fails to acknowledge the fact that the use of any fossil fuel, including natural gas, contributes to climate change.<sup>52</sup>

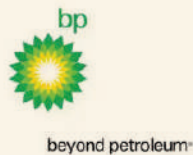
Another popular strategy used by those opposing climate action is to divert focus from collective and regulatory action towards individual behavior, breeding conflict among climate advocates by encouraging blame and virtue-signaling. The term 'carbon footprint,' was pioneered by BP, who invested over \$100

million annually between 2004 and 2006 to weave it into everyday language and focus on individual lifestyle choices. In 2019, they doubled down on this initiative, launching a fresh 'Know your carbon footprint' campaign on social media.<sup>52</sup>



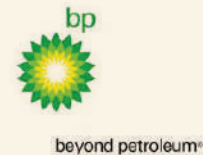
# What on earth is a carbon footprint?

Every person in the world has one. It's the amount of carbon dioxide emitted due to our daily activities—from washing a load of laundry to driving a car load of kids to school. Find out the size of your household's carbon footprint, learn how you can reduce it, and see how we're reducing ours at [bp.com/carbonfootprint](http://bp.com/carbonfootprint). It's a start.



# Reduce your carbon footprint. But first, find out what it is.

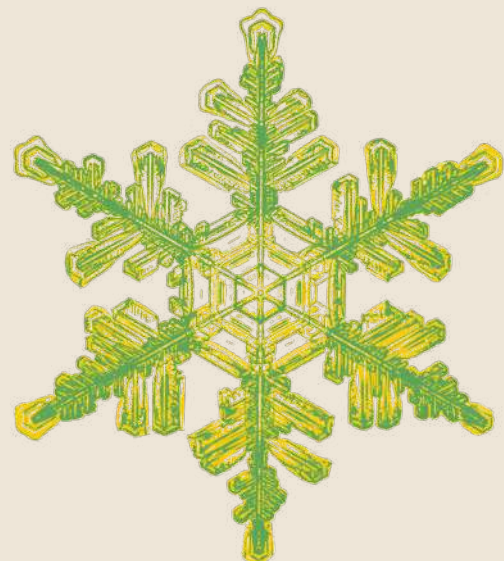
Call it your mark on the world. It's the amount of carbon dioxide emitted due to your daily activities—from mowing your lawn to vacuuming your home. Find out the size of your household's carbon footprint, learn how you can reduce it, and see how we're reducing ours at [bp.com/carbonfootprint](http://bp.com/carbonfootprint). It's a start.



Both ads were published in various publications from 2004 to 2006.

Figure 23: BP Ads on carbon footprint, published between 2004 and 2006.  
Source: The Guardian.

This focus on individual behavior might stem from feelings of powerlessness or despair, but it ultimately distracts from necessary structural changes. This strategy is used to discredit climate advocates by accusing them of hypocrisy for not leading austere, low-carbon lifestyles, fostering division and undermining the effectiveness of their messages. Lifestyle choices — which are closely tied to personal identity — become points of contention. This focus on individual actions can be harmful, as it can diminish support for system-level climate solutions & policy.<sup>61</sup>



### CASE STUDY: THE CRYING INDIAN

The Crying Indian Public Service Announcement (PSA) is a classic example of a deflection campaign where focus is shifted from regulatory reform onto individual action. The campaign was initiated by a consortium of American corporations including Coca-Cola, Pepsi, Anheuser-Busch, & Philip Morris, collectively named "Keep America Beautiful." In collaboration with the Ad Council and New York-based advertising giant Marsteller, they propagated the message of personal responsibility for environmental protection, downplaying the necessity of corporate accountability & systemic changes.

In the PSA, an actor dressed as a Native American sheds a tear after witnessing a littered river, implying that individuals are responsible for preventing pollution. In *The New Climate War*, Michael Mann argues that lifestyle alterations and consumer choices alone cannot substitute the need for infrastructural changes such as high-speed rail, renewable energy or carbon pricing. While there is value in advocating for individual action, it's crucial to balance the narrative by persistently pressuring politicians to enact climate-friendly policies – avoiding a divided community which inadvertently plays into the hands of fossil fuel interests.

According to John Marshall of the Potential Energy Coalition, misinformation can be tackled by being proactive and prepared.<sup>79</sup> Our problem is not the lack of effective messages, but rather the underinvestment in educating the public. One striking statistic Marshall mentions in a conversation on the *Outrage and Optimism* podcast is that less than 20% of people realize that clean energy has become more affordable in the past decade, with the cost of solar dropping significantly. This is a significant communication gap rather than a message problem. There are moments throughout the year where the general public is more attuned to climate-related issues and we need to be ready with the right messages during those times.

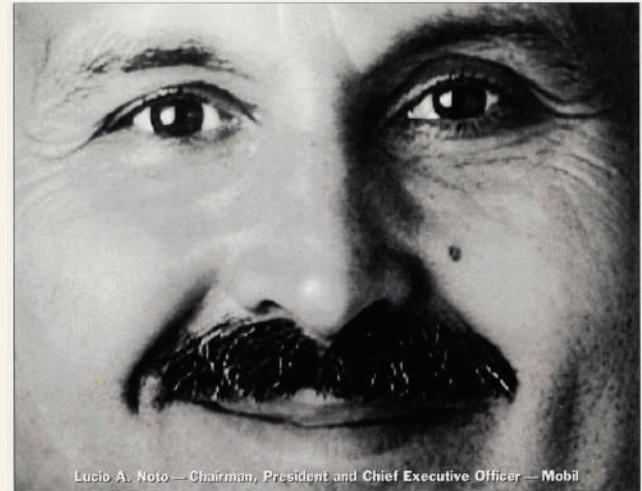




**CASE STUDY: GETTING PERSONAL  
(GREENPEACE X FENTON  
COMMUNICATIONS)**

In *The Activist’s Media Handbook*, David Fenton suggests that whenever it’s appropriate, narratives should be personalized. Every policy has decision-makers behind it, often with images that are publicly accessible. Making stories character-driven can make them more engaging, simplifying complex issues for the public. Adopting this approach not only garners attention, but can also stimulate extended discourse. Fenton exemplifies this with his experience from the 1990s when he designed a climate change advertisement for Greenpeace, featured in the *Washington Post*. The ad prominently displayed a photo of the CEO of Mobil, accompanied by the caption, “This man can actually change the weather.” which inadvertently plays into the hands of fossil fuel interests.

*Figure 24: Climate change advertisement for Greenpeace, “This man can actually change the weather.”*



Lucio A. Noto — Chairman, President and Chief Executive Officer — Mobil

**This man can actually change the weather.**

Severe storms. Floods. Temperature extremes. Unchecked, global warming will mean catastrophic climate change. Mr. Noto and the CEOs of the other oil companies could help prevent that catastrophe.

**Here’s the message Mobil Oil should be running today:** We at Mobil recognize that the burning of fossil fuels — oil and coal — is the major cause of global warming. Global warming is now an accepted scientific fact. It would take over fifty years to burn the proven reserves of oil at the current rate of use. If we were to burn all that oil, along with even moderate amounts of coal, the resulting change in climate would create a world wide catastrophe. We must pursue a safer, saner course: **NO NEW OIL.**

Instead of exploring and drilling for even more oil — as our fellow oil companies are

foolishly proposing to do off Alaska’s north coast — we pledge instead to stop further exploration. We also pledge to devote our research and development dollars to promoting energy efficiency and implementing solar and other renewable energy sources. We have more than enough reserves, more than enough time to prevent disruptions in the lives of the American people while we provide an orderly shift from oil and coal to renewable energy. Again, our motto will be: **NO NEW OIL.**

Unfortunately, this message is not forthcoming from Mobil and the other oil companies. Until these companies have leadership that understands that substantial profits can be made from solar and other renewable energy sources, it is up to each of us to act. We at Greenpeace are leading the fight to stop the oil companies from further exploration. Join us.

**GREENPEACE**

You can reach Greenpeace at 800-326-0959 or [www.greenpeaceusa.org](http://www.greenpeaceusa.org)



The fossil fuel industry has had a decades-long history of spreading misinformation to shape public perception and policy around climate change. By exploiting the public's understanding, financing campaigns, and delaying meaningful action, they have redirected climate narratives to focus on individual responsibility rather than corporate accountability. Combat

ting this misinformation will necessitate investment in public education to help people understand the reality, consequences, and solutions to the climate crisis. But fossil-fuelled misinformation is not the only challenge we're facing: Greenwashing has permeated virtually every area of climate communications, and is a growing threat to sustainability efforts.

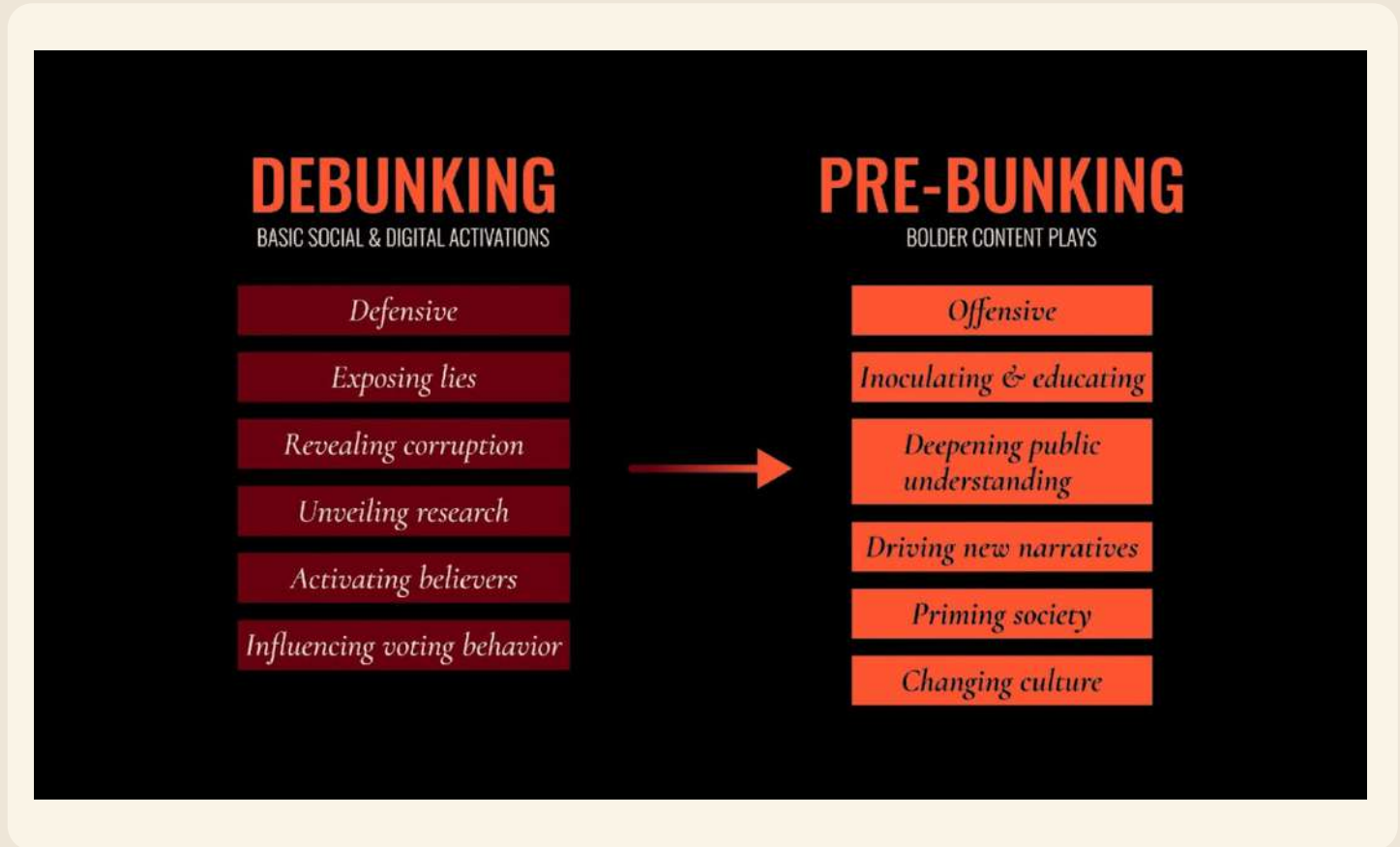


Figure 23: BP Ads on carbon footprint, published between 2004 and 2006. Source: The Guardian.



## 2.2 GREENWASHING

---

“Consumers want to make more sustainable choices —and are often willing to pay a premium for it—but are sabotaged by the fact they don’t know what they can trust.”

- Arwa Mahdawi, writer, in *World Federation of Advertisers*

Greenwashing is the practice by which companies claim they are doing more for the environment than they actually are. In recent years, greenwashing has risen for a number of reasons, including increased climate commitments, consumers seeking to buy more sustainable products, and employees feeling attracted to work for companies with strong sustainability credentials.<sup>80</sup>

Greenwashing is a growing concern as companies seek to attract customers by presenting their products as environmentally responsible and are incentivized to do so, following a rise in climate commitments and an increasing consumer demand for more sustainable products. However, according to CMA and EU Commission reports, up to 40% of websites use misleading tactics that potentially break consumer law. Furthermore, 53% of companies provide unfounded claims about their products’ environmental credentials.<sup>81,82</sup>



“The issue of greenwashing is one that’s been around for a long time, and is unfortunately experiencing a heyday of sorts, but it will be very short-lived. Because what’s happening is that a lot of companies are very slow. Most companies are slow to trend. Sustainability started trending about a decade ago, then about five years ago, it really was like ‘whoa, this is a real thing’. And most of the followers are just kind of getting there now. And they’re repeating playbooks from a decade ago when the expectations societally, from a regulation perspective, have fundamentally moved on. So they’re starting to say things to a world that is not happy to hear it. And so companies are learning these lessons in real time. The only caution is that I don’t want that much needed reversion to reality to make companies afraid to have ambition, afraid to innovate, afraid to invest. I don’t want it to have a chilling effect on innovation.”

**- Lucas Joppa, Chief Sustainability Officer, Haveli Investments**

Common greenwashing tactics include vague claims, unclear language, statements suggesting that products have no negative environmental impact, lack of evidence to support claims, and the use of own-brand eco labels not associated with third-party assurance to international standards.<sup>83</sup> The practice causes a number of severe negative consequences, including hindering the decarbonization progress, damaging brand trust, and an increasing lack of compliance with regulatory frameworks. Tackling greenwashing is one of the most important challenges facing climate action, and there is a need for greater transparency and accountability in environmental claims made by companies.<sup>84</sup>





Figure 29: Have you seen any of these labels before? These are not certified by any third-party assurance to international standards.

Source: Sharma et al, 2019

Advertising often involves low-effort mental processing, as consumers engage with it while multitasking – relying on mental shortcuts and focussing on visual cues such as nature images, green colors, labels, or product packaging, which trigger positive emotions and lead to the perception that a product is environmentally friendly. The impact of these cues is so strong that even the absence of green color on a label can cause a product to be perceived as less eco-friendly.<sup>85</sup>



Examining greenwashing leads us back to some of our usual suspects hindering real climate action. The 2017 Carbon Majors report found that just 100 companies, many of them in the fossil fuel sector, emitted more than 70% of the world’s greenhouse gas emissions since 1988. ExxonMobil, Shell, BP and Chevron were identified as among the highest emitting investor-owned companies since that year.<sup>86</sup> In 2022, the Democratic-led Oversight Committee found after a year-long investigation into climate disinformation that Big Oil companies have engaged in a “long-running greenwashing campaign” while raking in “record profits at the expense of American consumers” and avoiding real climate commitments despite portraying themselves as part of the climate solution.<sup>87</sup>

Many fossil fuel companies have pledged to achieve Net Zero by 2050, but internal documents show that no adequate steps are being taken – with BP and Shell even having scaled back their climate commitments recently.<sup>58</sup> Natural gas, which has been termed as a “bridge fuel” is only one of many examples of fossil fuel greenwashing – so powerful, in fact, that it has been classified as a renewable source of ener-

gy in the EU taxonomy in 2022. A BP email exchange in 2017 read that the company should only “minimize GHG emissions where it makes commercial sense”<sup>88</sup> – in short to greenwash, an art the fossil fuel industry has mastered. The goal of this is to maintain what BP calls its “social license to operate”,<sup>89</sup> as they are widely accepted by the public, rather than having to adhere to societal norms.<sup>90</sup>

A 2021 investigation by DeSmog<sup>91</sup> revealed that six major European fossil fuel companies are guilty of greenwashing, with a disproportionate focus on environmental efforts compared to their actual investments in green energy. Two thirds of more than 3,000 social media posts on YouTube, Twitter and Facebook presented a “green” image of the company, despite an average of 80% of the businesses’ operations remaining in oil and gas (and in one case coal). In contrast, only 16% of all online posts and promotions focused on the companies’ fossil fuel activities. Half the companies analyzed dedicated over 80% of their posts to their climate-friendly work such as renewable energy projects, though green investments only made up 12% of those companies’ portfolios.

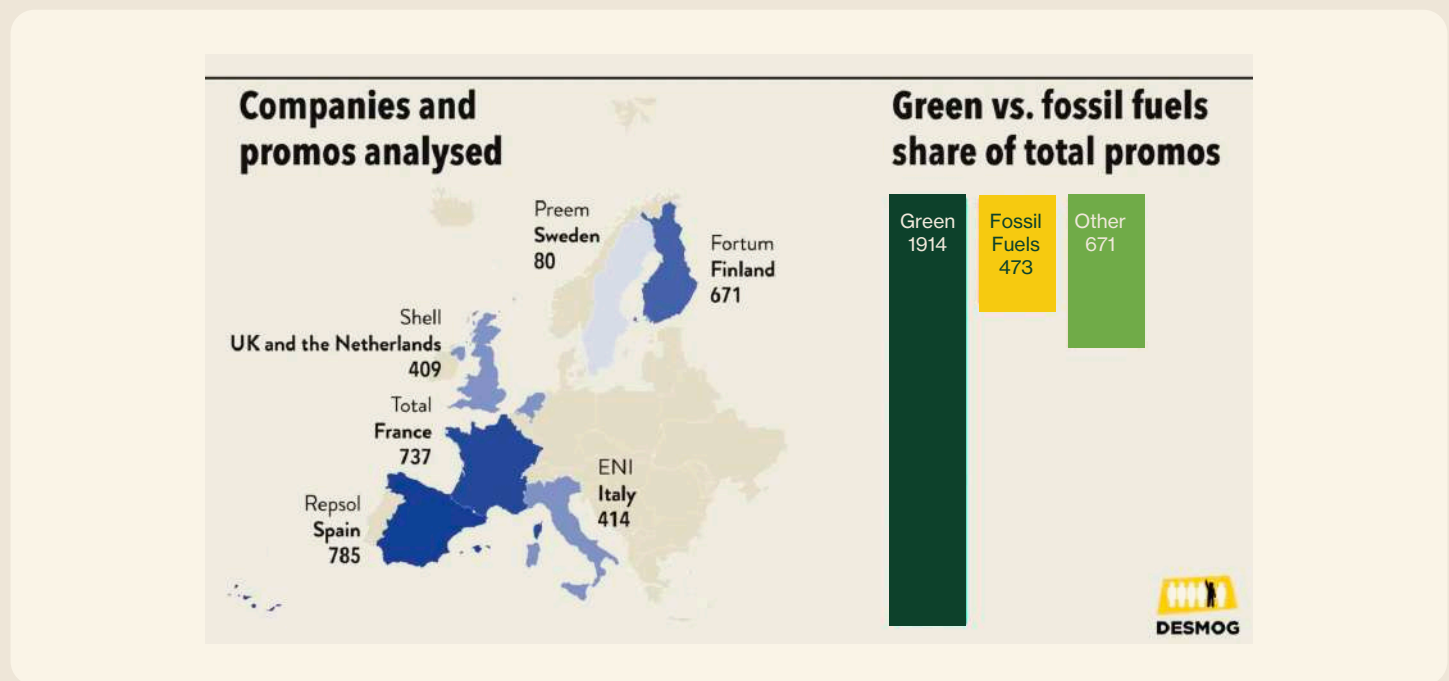


Figure 25: Energy companies which presented a “green” image. Source: DeSmog.

There is also a shift in how companies are promoting – or not promoting – their sustainability efforts. Some companies have even started cutting back on their environmental marketing – a trend which has been dubbed Greenhushing. Research by South Pole found that one in four of the 1,220 global companies with Net Zero targets it surveyed do not plan to publicize their progress as they go. While some companies are still making progress on sustainability quietly, others are worried about being called out for greenwashing or making unfounded claims.<sup>92</sup> However, some marketing experts say

that failing to market sustainability efforts could result in missed sales opportunities for those companies.<sup>93</sup>

What's driving the shift to greenhushing? Many companies' sustainability achievements focus on "doing less bad" rather than "doing good," which is difficult to sell. Talking about these activities can lead to criticism, including greenwashing allegations - so companies will need to learn to communicate sustainability issues in a balanced way, acknowledging the complexity of the challenge.<sup>94</sup>

## WHAT IS GREENHUSHING?

BY ANNA MCSHANE

GREEN CLAIMS LEAD THE CARBON TRUST

Greenhushing is a growing trend stemming from the fear of retaliation if a company puts a foot wrong. The concern is that greenhushing risks reducing transparency and hindering climate ambition. If companies stop talking about what they are doing, it disincentivizes others to commit to the bold action the world needs.

Consumer awareness of climate claims is increasing, and a growing number of consumers are well aware of what to look out for when it comes to green claims. Instead of staying quiet, companies should communicate openly to their customers, taking ownership of their failures as well as their successes. By being radically transparent, companies can build trust with their customers and the wider corporate world can learn from the mistakes of others and take action to move together in the right direction.



### New and sophisticated types of Greenwashing<sup>95</sup>

Type of greenwashing	Description	Example
<b>Greenhushing</b>	Deliberately underreporting or hiding green credentials to evade scrutiny	Many companies now have Net Zero targets, but choose not to report on their progress – often hiding the fact that they are not taking meaningful steps.
<b>Greenrinsing</b>	Regularly changing one's sustainability targets before they are achieved	Coca-Cola is known for missing and moving its recycling targets, as well as packing them with caveats. Between 2020-2022, the company dropped its targets for using recycled packaging from 50% by 2030 to 25%
<b>Greenlabelling</b>	Calling something green or sustainable, or using deceptive wording and symbols.	Unilever-owned detergent brand Persil was banned in the UK for its 'Kinder to the planet' campaign, as it had failed to substantiate its environmental claims.
<b>Greenshifting</b>	Implying that the consumer is at fault and shifting the blame to them	BP's "Know your carbon footprint" campaign invited customers to share their pledges for reducing emissions, spending millions on advertising about its low-carbon energy while simultaneously investing heavily in new oil and gas.
<b>Greenlighting</b>	Featuring a particularly green aspect of one's operations or products	Zero emissions vehicles made up only 0.2% of Toyota's total sales in 2021, while the company is pushing a 'Beyond Zero' sustainability campaign.
<b>Greencrowding</b>	Hiding in a group and moving at the speed of the slowest adopter	Eight of the top 20 biggest plastic polluters are on the Alliance to End Plastic Waste, but focus on recycling rather than reducing plastic production. Members also include Big Oil companies like ExxonMobil and Shell.



Greenwashing can also involve misleading advertisements (particularly on social media), claiming or suggesting that climate strategies are aligned with the Paris Agreement, or that they are committed to meaningful solutions.<sup>87</sup> In recent years, the UK Advertising Authority banned a number of ads for failing to meet these standards – from Hyundai marketing “a car so beautifully clean, it purifies the air as it goes”,<sup>96</sup> BMW helping to “give back to the environment”,<sup>97</sup> or Alpro implying that plant-based foods are universally “good for the planet”.<sup>97</sup>

Assessing vague, ambiguous or technical sustainability claims can be extremely challenging for most people. For example, the term carbon neutral is often understood by laypeople to mean an absolute reduction in carbon emissions, when in fact it can be achieved through offsetting to “balance” carbon emissions – a practice which has come under scrutiny recently as some major carbon offsetting schemes have been found ineffective.<sup>98</sup> When carbon neutral claims are based on the marketer simply offsetting emissions, this can ultimately undermine consumer trust.<sup>99</sup>

Greenwashing companies and governments are increasingly facing legal scrutiny. According to the Grantham Institute’s most recent Climate Litigation Snapshot, climate change-related legal cases have seen a significant surge globally – more than doubling since 2015 to over 2,000 cases.<sup>100</sup> Approximately a quarter of these cases were filed between 2020 and 2022. This trend highlights the increasing use of litigation as a tool to enforce or improve climate commitments made by governments, with 73

‘framework’ cases challenging overall governmental responses to climate change.<sup>100</sup>

Over the past year, there has also been a rising trend of legal cases against fossil fuel companies, particularly outside the United States. Such cases are expanding to include the food and agriculture, transport, plastics, and finance sectors. Their purpose is often strategic, intending to instigate broader societal shifts towards sustainable practices. Looking ahead, key areas of interest for climate litigation include cases involving commitments heavily reliant on greenhouse gas removals or ‘negative emissions’ technologies, short-lived climate pollutants, biodiversity, and legal frameworks for the ‘loss and damage’ caused by climate change.<sup>100</sup>



## THE RISE OF CLIMATE LITIGATION

BY JOHNNY WHITE

CLIMATE LAWYER AT CLIENT EARTH

With environmental concerns among consumers rising to fever pitch, it's unsurprising to see companies boasting green credentials when advertising their brands or products.

A problem arises when these claims are unsubstantiated. In the not so distant past, companies merely purporting to be green – when their products were anything but – could expect few consequences save for consumer backlash. Not so today – with the regulatory and legal landscapes changing rapidly to reveal that, while corporate greenwashing is ever more dangerously widespread, there are now serious risks facing businesses engaging in this damaging practice.

Firstly, greenwashing companies are increasingly finding themselves defending their advertising in the courtroom, with litigation taking aim at disingenuous environmental claims using existing laws that protect both consumers and investors from misinformation. This includes legal action against companies for unsubstantiated statements on environmental responsibility, and unfulfilled commitments to international climate agreements. We've also seen claims against companies cherry-picking information when advertising a brand or product's environmental impact, as well as when advertising misrepresents the impact of unproven technology or other 'solutions' – a key example being carbon offsetting.

Some of the companies with the most pervasive green marketing are those with the biggest environmental footprint – such as those in the fossil fuel, automobile, fast fashion, airline, and single use plastic packaging sectors – and therefore have become the subject of legal attention.

In 2019, ClientEarth filed a legal complaint in the UK against BP over the oil giant's international advertising campaigns, citing the Guidelines of the Organisation for Economic Co-operation and Development (OECD). The complaint set a precedent for alleged greenwashing to be challenged under consumer protection standards, and BP withdrew its advertising. A similar OECD greenwashing complaint was filed against the owner of the UK's largest power station, Drax Energy, over its public claims about its 'renewable' biomass business, which burns wood pellets to create power.

US oil and gas firm Chevron faced a complaint after campaigners alleged the company was greenwashing, infringing the US Federal Trade Commission's Green Guide standards for allegedly exaggerating its investments in clean energy. Also in the US, Washington Gas was the first energy utility to face a greenwashing lawsuit, after it was challenged by ClientEarth and partners over alleged misleading customers on the environmental impacts of methane gas.

Offsetting claims and Net Zero by 2050 pledges are also a big focus. Back in Europe, oil and gas giant TotalEnergies is facing a French lawsuit over its Net Zero publicity, as is KLM in the Netherlands – the world’s first aviation greenwashing lawsuit – over the airline’s ‘Fly Responsibly’ marketing campaign. The case against KLM, brought by Dutch campaigners Fossilvrij, and supported by ClientEarth, led to the company withdrawing the campaign despite maintaining its offsets programme. The case continues.

In Sweden, a court agreed with the country’s consumer watchdog that Arla’s ‘Net Zero milk’ claims were misleading, by giving the false impression it had ‘offset’ the impacts from making and transporting its products – the court banning it from using the term “Net Zero climate footprint”. The decision set a precedent under European consumer law, relevant to every EU country. A German court has made a similar ruling against TotalEnergies’ ‘CO2-compensated heating oil’ marketing. This year, Australia’s corporate watchdog has filed its first greenwashing lawsuit against Mercer Superannuation over the pension fund’s ‘sustainable’ investments in mining and fossil fuel companies.



Several cases could set new precedents, highlighting legal risks for companies making misleading green claims. In the Asia-Pacific region, regulators, especially in South Korea, are cracking down on greenwashing, drafting laws to fine companies. This follows a 2021 lawsuit against SK E&S over false "CO2-free" liquefied gas claims.



The UK's Competition and Markets Authority is probing Fast Moving Consumer Goods companies for misleading plastic packaging claims. The advertising watchdog has cracked down on greenwashing, penalizing HSBC, Lufthansa, and Etihad. Simultaneously, consumer regulators are investigating various fast fashion brands.



Australia's regulator fined Tlou Energy for baseless green claims. A complaint alleges Glencore misled investors in Australia with conflicting Net Zero climate claims amid coal production expansion.

*Figure 31: Actions taken by different countries to tackle misleading green claims.*

At the core of these cases are the rules in legal and regulatory frameworks worldwide, which seek to prevent firms from misleading customers and investors. These laws are being focused on greenwashing. New regulation is making them more specific and regulators are becoming quicker to take action, because truth in commerce is vital to addressing the climate and environmental crises. If companies want to make sure they’re a part of – rather than an obstacle to – the transition to Net Zero, they must ensure their environmental claims are clear, accurate and complete and are matched by credible action.

The prevalence of fossil fuel businesses in the cases seen to date is striking. To stamp out the most problematic practices, we need to see lawmakers go a step further and restrict fossil fuel advertising altogether, just like we did with tobacco. There's no other way to ensure people are protected and supported from advertising which delays climate action.

It is obvious today that health advertising by tobacco companies would be misleading. When it comes to environmental crises, the wave of cases and regulatory rulings point to an emerging norm that highly polluting industries – fossil fuel energy and transport, plastic, dairy, and meat – are similarly liable to mislead in sustainability advertising.

Effective regulation could be a solution to tackle the issue of greenwashing. The UK's Behavioural Insights Team recommends regulating advertising on an institutional level, as well as banning advertising within polluting sectors such as fossil fuels and aviation.<sup>101</sup> In fact, these bans are already beginning to be implemented in Europe – with Amsterdam banning aviation and fossil fuel companies (including petrol cars) from advertising in public spaces to reduce greenwashing,<sup>102</sup> and France becoming the first country to ban all fossil fuel ads in 2022.<sup>103</sup> But policy and regulation is not changing fast enough – we need brands and companies to be part of the effort to tackle greenwashing.

The scale of the problem is reflected in industry data as well: Deloitte data from 2022 shows that two thirds of executives have reported greenwashing as a serious concern in their industries, and that nearly half of manufacturing industries do not have strategic plans for climate mitigation.<sup>104</sup> As much as 30-50% of a brand's market capitalization comes from its reputation, making it essential to protect their brand trust.

The absence of a standardized definition for greenwashing causes problems for companies trying to be environmentally responsible, as it leaves them without clear guidelines. Regulations like the French Climate and Resilience

Law and the EU's proposed Unfair Commercial Practices Directive could provide some clarity, but the situation is less optimistic in the US where no such laws exist. Without a consensus on what constitutes greenwashing, businesses and investors alike are left in a limbo of interpretation and uncertainty.<sup>105</sup>

Combating greenwashing is crucial for both advertisers and regulatory bodies, as it poses a significant obstacle to the shift towards climate-friendly consumption. To tackle greenwashing, various strategies have been developed – such as certification systems, self-regulation, ban on greenwashing advertising practices, and efforts to boost consumer greenwashing literacy. Certification systems offer quality standards and environmental labels to help consumers authenticate green claims. However, the rise of unofficial green labels and certificates, which often use green advertising cues, has undermined public trust due to their lack of credibility. Advertisers should therefore focus on using green labels supported by official regulations and controls.<sup>85</sup> Self-regulatory organizations (SROs) offer more flexibility in responding to urgent changes in the environmental advertising sector, with most SROs organizing regular workshops and many providing training on green claims in advertising as a means of preventing greenwashing.<sup>106</sup>



Figure 26: Advertising standards enforced by Self-regulatory organizations. Source: EASA.

In parallel to these systems, advertising bodies are also taking proactive steps. The European Advertising Standards Alliance (EASA), the leading voice on advertising self-regulation issues in Europe, uses a number of methods to tackle misleading claims. On top of enforcement through complaints, EASA has taken to tackling greenwashing through awareness raising – using digital billboards,

paid twitter campaigns and press campaigns to inform and educate the public about misleading claims.<sup>84</sup>



**Do you like greenwashing?**



**Neither do we.**

Advertising self-regulatory organisations have been helping to protect consumers from irresponsible advertising for decades.

**easa**  
European Advertising Standards Alliance

[www.easa-alliance.org](http://www.easa-alliance.org)

**Do you like influencers who don't say when they've been paid?**



**Neither do we.**

Advertising self-regulatory organisations have been helping to protect consumers from irresponsible advertising for decades.

**easa**  
European Advertising Standards Alliance

[www.easa-alliance.org](http://www.easa-alliance.org)

**Do you like misleading advertising?**



**Neither do we.**

Advertising self-regulatory organisations have been helping to protect consumers from irresponsible advertising for decades.

**easa**  
European Advertising Standards Alliance

[www.easa-alliance.org](http://www.easa-alliance.org)

Figure 27: EASA's awareness raising campaign on greenwashing.

It's crucial for companies to take greenwashing seriously and have a clear strategy in place that is reliably measured and understood across all relevant business units. Fortunately, regulators around the world are taking notice and tighten-

ing their guidance and regulations for corporate sustainability claims. The European Commission is preparing an initiative requiring businesses to use standardized methods for quantifying their sustainability efforts, while the US Federal

Trade Commission provides guidelines for consumers on how to differentiate greenwashing claims.

### HOW EUROPE IS CRACKING DOWN ON GREENWASHING

In response to the spread of misleading 'green' claims by companies, the European Commission has proposed the 'Green Claims Directive', which aims to regulate and substantiate explicit environmental claims made by businesses. A study by the Commission found a majority of green claims either provided vague or misleading information, or lacked sufficient supporting evidence. The directive will establish guidelines to standardize sustainability and green energy labels, helping to provide consumers with clear and trustworthy information. Companies breaching these new laws could face penalties such as a deduction of 4% of their revenue, or exclusion from public procurement processes or subsidies for up to a year. Though not universally praised with critics asserting that the proposal was significantly weakened by corporate lobbying it represents a step towards reducing greenwashing. Other countries, like France and the UK, have also implemented laws to regulate 'green' claims, reflecting a global trend towards ensuring honest environmental marketing.<sup>107</sup>

With increasing regulation and societal scrutiny, silence on sustainability practices – as seen in the Greenhushing phenomenon – could be detrimental. Businesses need to find the right balance in their sustainability communications, utilizing strategies like the CRED framework, to ensure they remain authentic and compelling in their messaging, while avoiding the pitfalls of greenwashing and greenhushing. Effective communication of sustainability efforts can inspire other stakeholders and contribute significantly to the creation of a decarbonized, circular, and just economy.<sup>93</sup>



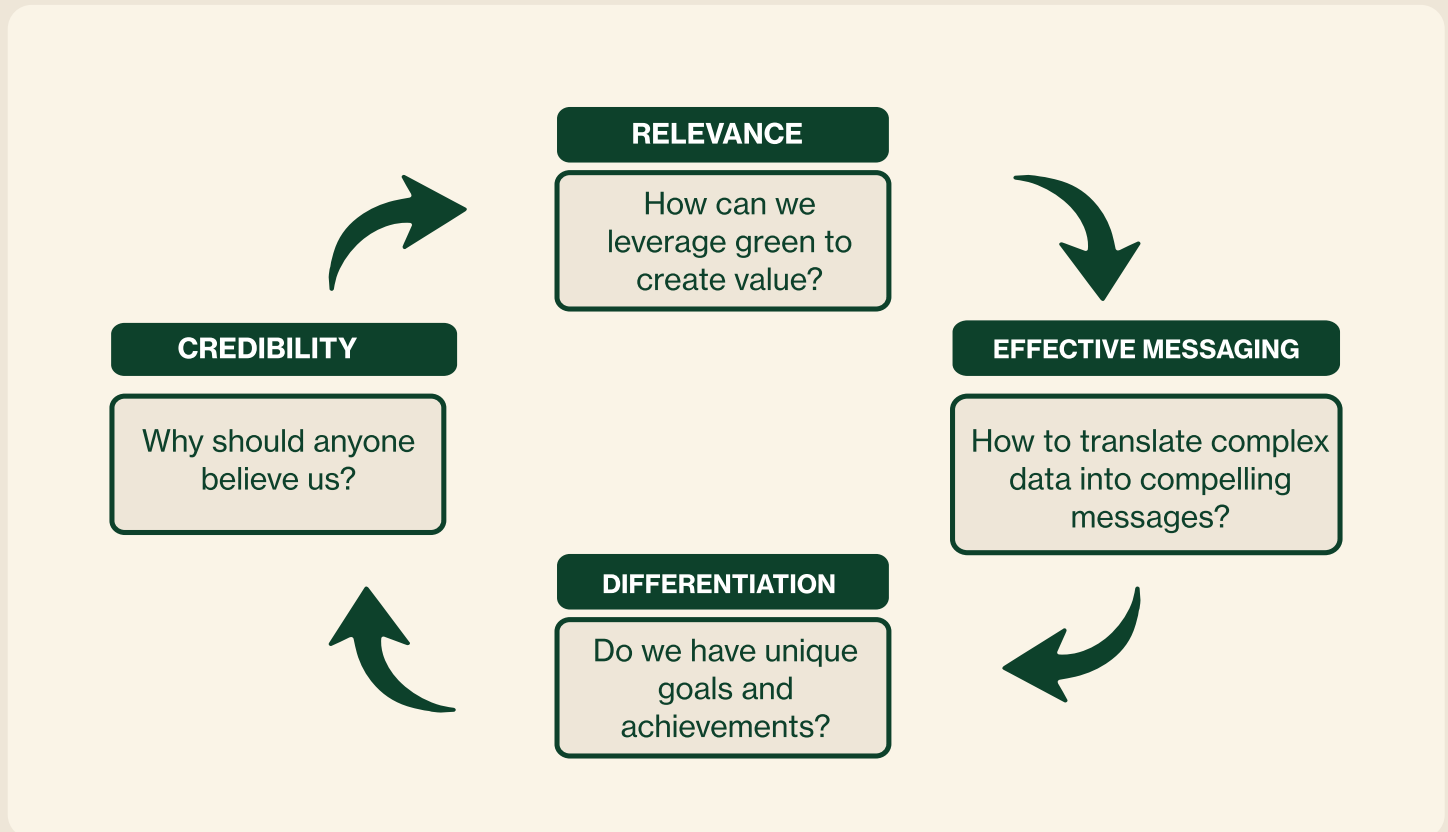


Figure 28: Strategies for the Green Economy.  
Credit: Joel Makower, 2008.

To ensure that sustainability efforts and claims comply with local laws and regulations, a company's General Counsel should communicate regularly with the C-Suite to ensure they are backed up with real results and data, and aligned with the overarching corporate strategy. Additionally, multinationals with a large global footprint can work with service providers that specialize in global sustainability for added assurance. Taking these steps can help companies leave a positive impact both for their long-term reputation as well as wider society.<sup>106</sup>

Leading creative agency Accenture Song's advice on avoiding greenwashing emphasizes the importance of honesty, transparency, and concrete action over hollow buzzwords – recommending careful scrutiny of sustainability claims to ensure they're a genuine part of a brand's strategy, rather than a distraction. This includes looking into the budget allocation bet-

ween marketing and sustainability investments. Accenture Song's concept of 'greenworking' promotes a truthful representation of a company's current position on sustainability, while responsibly setting future goals. Brands are encouraged to showcase their practical actions to avoid constructing a misleading eco-hero persona, and use precise language instead of ambiguous, overused terms like 'green' or 'eco-friendly'.<sup>108</sup> By adopting clear, everyday language, businesses can promote sustainability more authentically and remain honest and transparent.

The double challenge of misinformation and greenwashing is a complex issue which has significant consequences for the future of our planet and its people. While a vast majority of the scientific community agrees on the climate crisis being caused by humans, misinformation continues to seep into public discourse. Key players like Meta and Google have taken steps



to curb the spread of misinformation, but major players like the fossil fuel industry continue to create misleading advertising campaigns which slow down progress on climate action.

While the demand for sustainable products is on the rise, so too is greenwashing – which jeopardizes public trust and sabotages genuine progress. Regulatory landscapes are shifting in response – with countries like Amsterdam and France leading the charge against environmentally misleading ads – but the lack of a standardized definition for greenwashing continues to lead to confusion and potential for loopholes.

**RECOMMENDATION:** Gradually, solutions such as certification systems, greenwashing literacy education, and strengthened regulatory guidelines are starting to emerge as potential solutions – but what is really needed is a transformation driven by business and marketing.

Companies planning to reach new customers – and keep existing ones – should prioritize honesty, clarity, genuine action, and commitment to sustainability over short-sighted marketing strategies. In a world on the brink of climate tipping points, integrity in communication and action is not just advisable, but an imperative.



## 2.3 CLIMATE COMMUNICATIONS ROLE IN ACHIEVING THE PARIS AGREEMENT AND SUSTAINABLE DEVELOPMENT GOALS

Governments have a formal duty under Article 6 of the UNFCCC to educate citizens on climate change, involve them in policymaking, and ensure access to necessary information. But despite the growing urgency of the climate crisis, marginalized and economically vulnerable citizens often remain excluded from climate change conversations. The UNFCCC's [Action for Climate Empowerment \(ACE\)](#) consists of six core principles, including education, training, public awareness, public participation, public access to information, and international cooperation, all of which are essential for public engagement and holding governments accountable.



### Article 6 of the convention

In carrying out their commitments under Article 4, paragraph 1 (f), the Parties shall:

(a) Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:

- (i) The development and implementation of educational and public awareness programs on climate change and its effects;
- (ii) Public access to information on climate change and its effects;
- (iii) Public participation in addressing climate change and its effects and developing adequate responses;
- (iv) Training of scientific, technical and managerial personnel;

(b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:

- (i) The development and exchange of educational and public awareness material on climate change and its effects;
- (ii) The development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries.

### Article 12 of the Paris Agreement

Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.

Figure 1: Paris Agreement, UNFCCC.

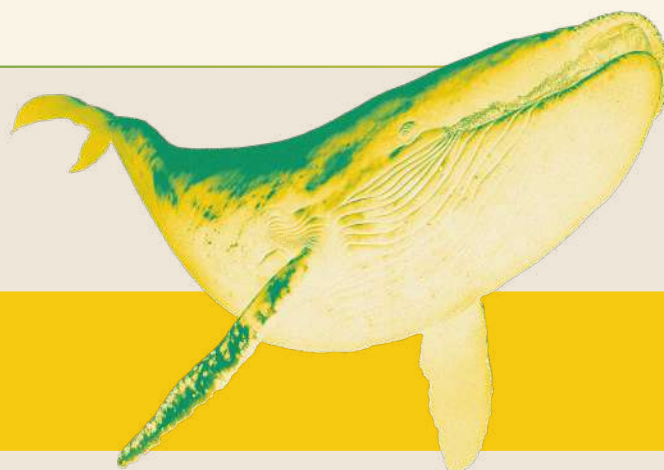
## CAUSE FOR OPTIMISM

BY RAJIV SHAH

PRESIDENT OF THE ROCKEFELLER FOUNDATION

Across too much of modern media, there's fragmentation and negativity. People are staying in small communities where they're fed information that reinforces their current point of view. The media industry has a responsibility to not just produce and provide content that is clear about the challenges we face and hopeful about the solutions we can embrace – it also needs to break down silos and help people from different political persuasions and communities see, hear, and engage with the same information in a way that creates a less fragmented society. Togetherness is going to be needed in order to win the fight against climate change. When I look at the media on climate, a lot of it is a dire warning about the pace at which climate change is already happening. Much of it leaves us feeling helpless – that we don't have the power within ourselves to change something so global. We need to communicate in a way that helps people understand that the things they do and the choices they make today will determine whether our kids get to live on a habitable planet.

My optimism is rooted in science and technology, and I get hope from that science being applied to transform the way we live, towards sustainability. But the real reason I'm optimistic is that at the end of the day, I've seen people in very, very tough circumstances hold on to hope. I've been in Somalia at the heart of famine. I've been in Afghanistan at the heart of conflict-related violence. And what I've learned is that whatever your politics, whatever your ethnic background, whatever your religion, whatever your circumstances – people want to be hopeful about the future. As long as people hold on to that hope, and as long as we serve that sense of hope with honesty and durability, I will remain optimistic. Science and technology will make things possible, and people will come together and partner in unlikely ways. We know how to run major global initiatives that deliver results. It's the sense of aspiration, and the desire everyone naturally has to build a world that's better for their children than it was for them. That's what gives me hope.



## CHAPTER 3 – RE:THINK

# THE CURRENT STATE OF CLIMATE COMMUNICATION

---



### 3.RE:THINK

**C**ommunication has the power to be a driver of action or inaction, of hope or despair, of literacy or misinformation. When it comes to the climate crisis, we often walk a fine line between these extremes. But the strategies we use to communicate about climate, and the platform through which our messages are disseminated, are factors too important to ignore. They shape our collective response to the biggest threat facing humanity, and they urgently need overhauling.

The climate story is defined by competing interests and complex dynamics between media conglomerates and public opinion – distorting scientific knowledge and consensus. Adding to the challenge is the single-frame messages many of us are exposed to – portraying climate as an isolated issue, rather than in its full interconnectedness with social justice, the economy, and global geopolitics.

Simplified and sensationalized media portrayals may raise awareness, but are also one of the key challenges we have to overcome to foster meaningful and sustained action.

By recognizing the power in every message we share, we can tackle the task ahead by rethinking the way we talk about climate change, and reshaping our collective imagination – redefining narratives that will carry us into a better and more sustainable future.



### 3.RE:THINK

#### 3.1 WHERE HAVE WE GONE WRONG?

“NGOs, scientists, and government officials tend to communicate quite well with one another when it comes to the climate crisis—but little of it is designed or intended to reach the public.”

- Tim Kelly, Director of Earth HQ, Global Commons Alliance

Climate communication has often been neglected in terms of attention, investment, funding, planning, and strategy – including by institutions and NGOs working in the climate sphere. The field is facing a difficult conundrum: while fear-based and guilt-based messaging may grab our attention, they don't necessarily inspire action. Those tactics are often perceived as manipulative and can lead to a sense of helplessness, hopelessness and even resistance among the public.<sup>32</sup>

The climate crisis is not only one of communication, but also a crisis of imagination – or more accurately, a lack thereof. Author and professor of environmental politics Paul Wapner argues that our response to climate change is limited by our “hardening of the categories”, and that this restricts our ability to explore new possibilities and narrows the range of potential solutions to the climate crisis. Conventional political, economic, and cultural understandings dominate our climate response, and the need to appear practical and realistic often stifles more imaginative, transformative ideas.<sup>109</sup>

Media coverage on climate change is often over-represented by extreme weather events or political news (such as COP or climate protests), rather than a balanced portrayal of scientific publications.<sup>110</sup> Climate communication has been found to play a vital role in policy and governance, but many best practice findings are not reflected in the current media landscape (see 5.1). While news media is seen as a trusted source on climate change which can influence collective action, it often doesn't align

## MISMATCH BETWEEN PUBLIC BELIEFS AND CLIMATE SCIENCE

BY SUSAN JOY HASSOL

SCIENCE COMMUNICATOR AND DIRECTOR OF CLIMATE COMMUNICATION

Though there has been improvement in climate communications, there is still too much abstraction, an overemphasis on numbers and on dates far in the future that are not meaningful to most people, and an air of inevitability. Most of us are experiencing climate change through the increase in extreme weather. We should explain how climate disruption is making extreme weather worse, creating a New AbNormal filled with UnNatural Disasters. But we can still avoid the worst by acting urgently and decisively. We must keep the focus on real climate solutions: phasing out fossil fuels, deploying clean energy, and protecting our forests and other natural lands. And let our story not be one of sacrifice and deprivation, but of opportunity and improvement in our lives, our health, and our well-being – a story of human flourishing in a post-fossil-fuel age. We can create a better world. The future is in our hands.

with psychological mechanisms which can trigger such actions. Mere awareness-raising has been found ineffective for inspiring behavioral changes.<sup>110</sup>

Adding to the challenge is the fact that much of the communication coming from governments and other institutions is based on the flawed assumption that people will change their behavior once they are provided with the

correct information. This top-down approach is commonly used, despite repeated evidence that it is ineffective.<sup>109</sup> To create meaningful change, we need to find new and innovative ways to communicate climate issues that are empowering and inspiring, rather than fear-mongering or guilt-tripping. By doing so, we can engage the public in a way that inspires collective action towards a sustainable future.

## CLIMATE COMMUNICATIONS: FIGHTING POLITICAL AND INDUSTRIES' INTERESTS

BY DAVID FENTON

FOUNDER OF FENTON COMMUNICATIONS

The Yale Project on Climate Communications' polling numbers paint a bleak picture: Two thirds of people in the United States report that they rarely or never hear or see anyone talking about climate change. Only 20% of Americans know that all climate scientists agree that humans are causing the earth to heat. This misunderstanding is the result of years of fossil fuel industry propaganda and underinvestment in climate communications by philanthropic and NGO sectors. According to Tony Leiserowitz, of The Yale Program on Climate Communication, we're in a propaganda war – but we're not even on the battlefield.

Many people incorrectly believe that climate change is caused by the ozone hole and that clean energy is expensive. In most of the world, a significant portion of the population has never heard of climate change. This lack of awareness and knowledge is a massive failure. In the United States, there was a brief surge in climate awareness following the release of Al Gore's film *An Inconvenient Truth*, but due to lack of consistent effort, that awareness has declined and stayed down.

Climate change is now a deeply polarized political issue, and efforts to convince conservative audiences of the reality of climate change using their spokespeople and values have been insufficient and largely invisible. Climate communication is in a sorry state, but the good news is that of the 30% of people that are alarmed, half of them want to do something about it.

The issue also lies with a lack of investment in communication, a lack of unified language and imagery. Our discussion of climate change with the public is like the Tower of Babel, with everyone talking about it differently. Meanwhile, the fossil fuel industry and those who deny climate change are unified in their discussion. We need to use language and imagery that works with the public. The bad news is that the current state is a failure, but the good news is that we know what to do – we just need the resources to do it.

### 3.RE:THINK

To summarize, the overemphasis on scientific data in climate change communications has created six categories of problems we need to address:

(1) Scientific language can be difficult for the general public to understand, as it often uses jargon and other technical terms that are not familiar to laypeople. This leads to a communication gap between scientists and the public, and makes it difficult for people to engage with climate change information.<sup>32</sup> Science communication for non-scientists needs to be made stronger, but simpler<sup>111</sup> – with initiatives like [Climate Science 2030](#) making great progress on this front.

(2) Many scientific journals and research articles are behind paywalls, making it difficult for the general public to access them. This creates an accessibility issue, as only those who can afford to pay for or have access through their institutions are able to read and engage with the latest scientific research on climate change. To address this issue, many scientists and organizations are advocating for open science.

(3) Scientific research on climate change is often conducted in countries in the Global North and through a Western lens, which may not reflect the lived experiences of communities most affected by climate change. This can lead to a lack of understanding and empathy for those communities, as well as a failure to address their specific needs and concerns. Analysis by Carbon Brief found that climate science research is lacking diversity, with women and scientists from the global south being under-represented. Of the 100 most-cited climate science papers from the past five years, less than 1% of authors were based in Africa, and only 12 papers analyzed had female lead authors.<sup>112</sup>

(4) Scientific research is often not distributed through the channels where people get most of

### 3.1 WHERE HAVE WE GONE WRONG?

their information, such as television, online news sites and social media. This can make it difficult for people to access and engage with climate change information, as they may simply not be aware of it. Making scientific information more available in a centralized and consistent way could help build trust and reduce feelings of confusion and overwhelm that are widely present in the public.

(5) Most people do not think in data and probabilities, but in images, stories, and experiences.<sup>32</sup> This means that even if scientific research is broken down into bite size chunks and explained in plain language, it may still not be engaging for most audiences. To address this, scientists and communicators should incorporate storytelling and visual representations of climate change into their communication strategies, and work to make scientific information more relatable and meaningful for the general public.

(6) An overemphasis on scientific data also neglects the development of future literacy within the media. The future we must create does not exist, and media and science communicators can help the general population envision this (an important prerequisite to creating it).

If scientists and communicators focused more on future literacy and outlining solutions, rather than just highlighting catastrophic data-riddled reports, it would enable people to comprehend options for transformation.





# RECLAIMING OUR HUMAN POTENTIAL

BY WILL TRAVIS

FOUNDER OF ELEVATION BARN

Humanity is brimming with the talent, skill, know-how, and capacity to affect significant change - just look at our global response to COVID. Unfortunately, the narrative of individual accomplishment, fueled by capitalism and our education system, overshadows this. Instead of evaluating self-worth, we ought to be assessing our planet's worth. Are we deserving of the planet's sustained support? Will it even continue to support us when places are aflame?

Tragically, it seems that force, resulting from personal impact, is the only catalyst for trajectory change. I don't fault individuals for our current state, but the visionless approach to installing habits that set us on this destructive path. Here's the silver lining - our brains are wired to allow habit change within just a month, given the right strategy. David Ogilvy, a titan in global creative thought, once said, if you hurl half a dozen tennis balls at someone, they won't catch any. If you throw one, they'll catch it. Today, the issue isn't just about throwing a single tennis ball - the problem is that even if we're throwing a single ball, it's amongst a barrage of others bearing different messages. People aren't intentionally ignorant; they're simply catching other messages.

The COVID-19 pandemic, which brought much of the world to a standstill, also sparked changes in the way we think about climate change. UK data reveals that during the first lockdown, Google searches related to climate change, carbon footprints, and pollution levels increased dramatically.

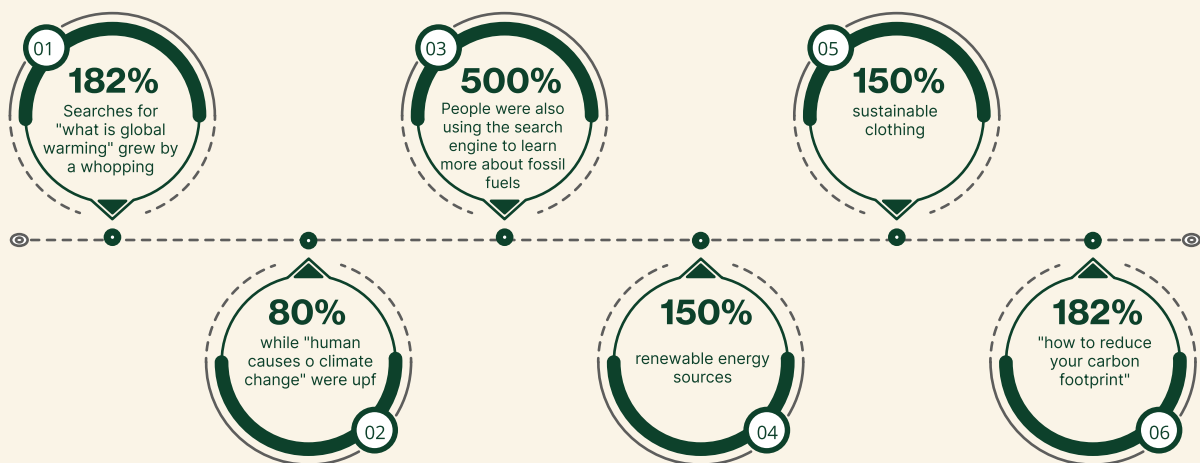


Figure 34: The way the COVID-19 pandemic changed the search for knowledge on climate change. Source: MyEnergi.

The COVID-19 pandemic, which brought much of the world to a standstill, sparked changes in the way we think about climate change. UK data reveals that during the first lockdown, Google searches related to climate change, carbon footprints, and pollution levels increased dramatically. Searches for "what is global warming" grew by 120%, while "human causes of climate change" were up 80%. People were also using the search engine to learn more

about fossil fuels (+500%), renewable energy sources (+150%), sustainable clothing (+150%), and "how to reduce your carbon footprint" (+140%).<sup>113</sup> These statistics are a testament to the growing concern people have about the impact of climate change, and the latest IPCC report, with its dire "code red for humanity" warning, only added to this sense of urgency, with searches for "what can I do about climate change" skyrocketing by 2,600%.<sup>114</sup>

These statistics are a testament to the growing concern people have about the impact of climate change, and the latest IPCC report, with its dire

**ipcc Report** **"code red for humanity"**

warning, only added to this sense of urgency, with searches for "what can I do about climate change"



**skyrocketing by  
2,600%**

Figure 32: Searches of "what can I do about climate change" skyrocketed by 2,600%. Source: Google data provided to the Grist.

Psychologically, there are several barriers<sup>110</sup> which prevent current dominant media narratives on climate change from leading to action:

## Confirmation Bias



People tend to focus on information that reinforces their existing beliefs, a phenomenon known as confirmation bias. This is more pronounced in online spaces, where algorithms reinforce echo chambers.



Information can often be processed superficially, and current climate framings suffer from an over-focus on long-term and distant effects (such as temperature and sea level rises by the end of the century). This leads to reduced motivation in individuals to process information on a deeper level.



The lack of action-oriented messaging in many climate framings leads to a lack of empowerment – which is essential for fostering pro-environmental behavior. Even if climate stories attract attention, the way they are communicated does not help grow a collective sense of efficacy



the feeling that our actions could make a difference.

Figure 36: Confirmation biases in online spaces.

Source: Perga et al, 2023.

In an interview for the podcast *Outrage and Optimism*, John Marshall, CEO of the Potential Energy coalition, emphasized the need to understand people's concerns and priorities in order to effectively engage them as climate communicators. Simplicity is key – it is important to speak in a language that the average person can understand and relate to, but we also need to appeal to people's humanity. The most effective messages often center around personal stories, illustrating how someone is affected by the issue at hand. For example, an experiment conducted by PEC found that it is five times more effective to prompt action by talking about "saving Florida" rather than aiming for "net zero by 2040".<sup>115</sup> According to Marshall, the popular phrase "fighting climate change" may also be too abstract for many to

abstract for many to grasp. Instead, rebranding the fight against climate change as a battle against pollution or polluters could be more impactful – particularly in regions like the global South, where air pollution is a major concern.



## OUR CREDIT CARD IS OVERDUE

BY PADDY LOUGHMAN

CO-FOUNDER OF INTER-NARRATIVES & STORIES FOR LIFE

The crises we face are symptoms of an economical design that is not accounting for true cost. To redesign our economy, we need to reveal this, and tell a better story. ‘Eco’ originated from the Greek word for ‘household’, and ‘nomy’ means manage – so ‘economy’ means ‘Household management’. As the world burns, floods, fills up with rubbish and runs out of food and water, it becomes ever clearer that the system we have designed to manage it is failing.

A root cause of this is the narrative about our relationship to the world that modern science is now proving to be wrong – the separation narrative. It tells us that we are separate from nature and should dominate and control it. What recent scientific breakthroughs are recognizing is that the ancient wisdom we have dismissed in Western countries is in fact scientifically provable reality: we exist in a state of entangled, integrated relationships with the natural world. By destroying the natural world, we are destroying ourselves.

We need a narrative of ‘interbeing’, one that has been carried by cultures around the world for thousands of years. The converging of polycrises we face can be understood to be symptoms of this narrative misalignment, this disconnection with reality. A disconnection which led us to design an economic system that is quite clearly out of step with reality, and allowed us to celebrate economic growth without accounting for the true costs.

We’ve identified a cost, massively underestimated it, decided not to pay it, and then claimed to be making a profit. And that cost is the destruction of the thing that makes everything possible in the first place. Much like paying with a credit card and not paying the debt until it gets blocked – but the debt is damage to life, and getting blocked is the collapse of the systems that make life possible. This is a terminal condition.

We have been living beyond our means, dreaming in a fantasy land. It’s time to wake up, change the narrative, and redesign our system in-line with what science, ancient wisdom and basic common sense reveal. If we don’t, we’re in for a rough ride. “Nature bats last”, as the saying goes. A good place to start is recognizing the true importance and sanctity of nature in law, so that we can start collecting the true cost and start incentivizing the protection of the life we need to live.

The media continues to under-represent or even omit climate change issues in media discourses, even as public concern rises. Recent research commissioned by Good Energy revealed an alarming lack of climate change discourse in mainstream TV and film in the US – with climate-related terms appearing in less than 0.56% of scripts from 2016 to 2020. Even as public awareness and concern for the

climate crisis grows, this reality is not reflected in the media – contributing to a phenomenon termed climate silence. A recent example of this is the record-breaking Texas heatwave of June 2023: Analysis by Media Matters revealed that the extreme weather event was linked to climate change by only 5% of 310 segments and weathercasts across national TV news which reported on the heat wave.<sup>116</sup>

## Less than 0.56 percent of scripts mention the term “climate change”\*



- 0.56% MENTION THE TERM “CLIMATE CHANGE”
- 2.8% MENTION ANY OF THE 36 MAJOR CLIMATE-ADJACENT WORDS WE SEARCHED, INCLUDING “GLOBAL WARMING,” “CLIMATE CRISIS,” “SEA LEVEL RISE,” “SOLAR PANELS,” AND “RENEWABLE ENERGY.”
- 96.64% DO NOT MENTION ANY CLIMATE-ADJACENT WORDS

\*according to new research we commissioned from the USC Annenberg Norman Lear Center's Media Impact Project. They analyzed all 37,453 scripts that aired in the US media market between 2016 and 2020.

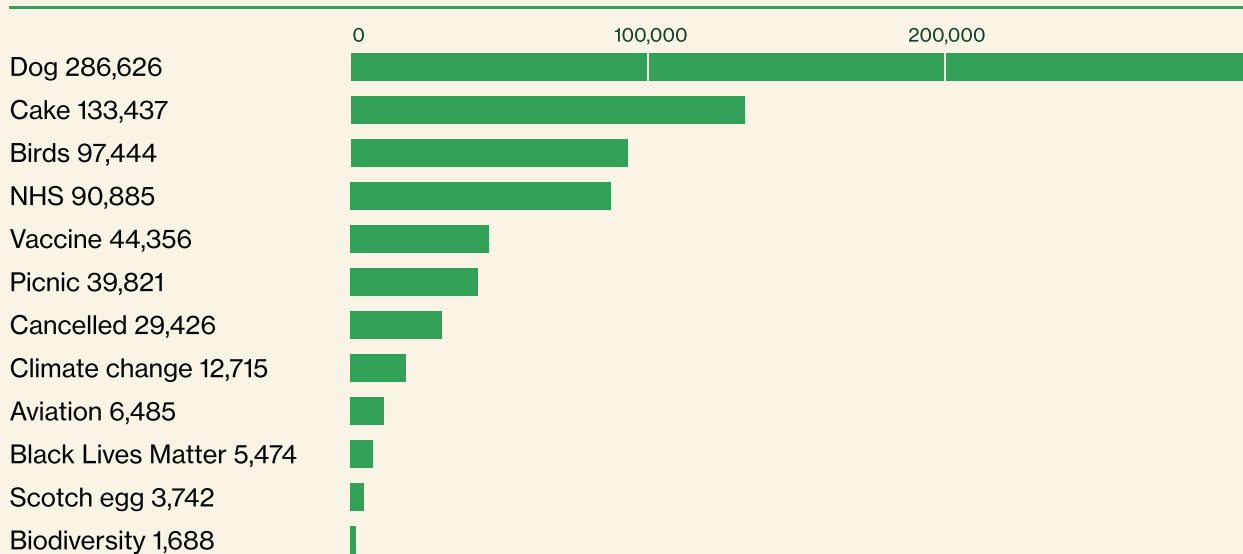
Figure 35: Share of scripts that mention 'climate change'.  
Source: Good Energy.

Despite 75% of Americans expressing concern about climate change and a growing sense of personal responsibility to address it, these sentiments are not echoed in popular entertainment narratives. This silence contributes to a lack of climate conversations in everyday life and exacerbates feelings of anxiety and isolation among climate-aware audiences. The film industry holds the power to change this narrative – with climate-focused productions like Adam McKay’s *Don’t Look Up* recording high viewership numbers – illustrating audience receptivity to climate-related storytelling.

"banana bread" was more common than a combination of "wind power" and "solar power".<sup>117</sup> Such findings emphasize the need for broader and more meaningful engagement with climate issues in media to spur collective awareness and action.

According to Susan Joy Hassol, a widespread misconception has been growing that it's too late to combat the imminent global climate catastrophe. This can be partially attributed to the media's overfocus on disasters instead of solutions, fostering a sense of despair and fatalism, particularly among younger generations. In

### The terms 'dog' and 'cake' were used far more often than 'climate change' on UK TV in 2020



Guardian graphic | Source: Albert analysis of 2020 subtitling data from BBC, ITV, Channel 4, Channel 5, UKTV and Sky. Selected terms shown

Figure 33: Searches of terms 'dog' and 'cake' were 10-20 times far more common than 'climate change'. Source: The Guardian.

In the UK, climate silence in the media was vividly demonstrated in a report by Albert, a Bafta-backed sustainability project, which highlighted the disparity in the representation of climate change issues on UK television in 2020. For example, the term "cake" was mentioned 10 times more often than "climate change", and

fact, a Lancet study in 2021 revealed that 84% of young individuals are worried and 75% find the future frightening. Hassol stresses the importance of communicating clearly that it's not too late to prevent the worst outcomes – but urgency is still needed, as every delay results in a hotter and costlier future.<sup>45</sup>

---

“(T)he biggest challenge we face isn’t science denial. It’s a combination of tribalism, complacency, and fear. Most don’t think climate change is going to affect them personally or that we can do anything reasonable to fix it; and why would they, if we never talk about it?”

**- Katharine Hayhoe, climate scientist and author of Saving Us**

The language we use to describe the climate crisis matters – global warming, for example, is not used widely anymore as it paints a misleadingly innocuous picture of reality. On the other hand, the term 'climate change' fails to reflect the urgency and immediacy of the situation we're experiencing, which is why terms like 'climate crisis' or 'climate emergency' are favored by many. Other terminology popular among climate experts – like Net Zero, decarbonization, or 1.5 degrees – is often misunderstood by the general public due to their complexity or ambiguity. The term climate justice, as PR specialist David Fenton notes, is particularly difficult as 'justice' is more commonly associated with courts or police, leading to confusion rather than resonance when it's linked with 'climate'.<sup>118</sup> Our choice of terms can either clarify or confuse – properly understanding how and when to use them will shape how the public perceives and responds to the climate crisis.

While media attention towards climate change has increased in recent years, it often fails to address the interconnected issues of nature, biodiversity, and social justice. Media portrayals of climate change often depict it as an isolated single-issue problem, disconnected from larger systems. By doing so, the media often misses the opportunity to highlight how climate change is intertwined with issues of inequality, poverty, and access to resources – all of which are powerful angles for climate communication.

What the media often overlooks is that climate change isn't just a distant environmental concern. It is an immediate and deeply personal matter, affecting every aspect of our lives – from our health to our economy. As author Margaret Atwood famously put it, "it's not climate change, it's everything change." The climate crisis is not only about polar ice caps and exotic species but also about the food we eat, the air we breathe, the water we drink, and the communities we live in.

By failing to link climate change to social justice, the media overlooks a compelling narrative that could help make the climate crisis more relatable and urgent to a broader audience. This narrative could highlight that acting on climate change isn't just about preserving nature; it's about creating a fairer and healthier society for us all. This shift in storytelling could generate more engagement, empathy, and ultimately, a more powerful and widespread demand for climate action. Unfortunately, achieving this shift is an uphill battle in a media landscape that, in many ways, reflects the unhealthy state of our planet.

---

“Lack of social sciences and humanities in climate knowledge due to the domination of natural sciences, including modeling, has resulted in science that has not been implemented. Bypassing detail and contextual knowledge in the search for reductionist, simple messages has resulted in techno-optimism and a solutionist perspective that does not sufficiently recognize climate justice, equity dimensions nor acknowledge that the way forward requires societal transformation.”

**- Dr Lisa Schipper, Environmental Social Scientist, on Twitter**

### 3.RE:THINK

### 3.1 WHERE HAVE WE GONE WRONG?

A 2018 study suggests that large-scale social changes require the active engagement of about 25% of the population.<sup>119</sup> As of late 2022, the majority of Americans (53%) express either alarm or concern, with most willing to act,<sup>120</sup> indicating that we're approaching this critical threshold of engagement. Effective communication is vital in engaging the public and stakeholders with climate, nature, and sustainability issues – bringing together the scientific and creative communities could help create a compelling narrative that inspires action [\(see 8.1\)](#).

By making these issues personal and relatable, we can connect with people on an emotional level and inspire them to take action towards a more sustainable future. However, it's not just about how we frame climate narratives, but also

the platform we use to distribute them. As such, it's crucial to examine our current media landscape and how it is influenced by both political and cultural factors, contributing to widespread polarization and uncertainty around climate issues.





### 3.RE:THINK

## 3.2 THE POLITICAL AND CULTURAL LANDSCAPE OF MEDIA

The media and entertainment sector is an under-acknowledged player in influencing public attitudes and behaviors, and the role of media in shaping public perception and discourse around climate change cannot be overstated. Media and entertainment companies hold immense sway over public opinion, shaping societal dialogue through the content they produce, disseminate, and endorse. This influence has been termed the media's Brainprint – the industry's psychological impact which extends into people's everyday decisions and product preferences, driven by media's deep ties with advertisers.<sup>121</sup>

Media representations of climate change play a significant role in shaping the public's understanding of this pressing issue – for non-experts, including citizens and decision-makers, these representations are often the primary source of information. Over the past few decades, there has been a growing focus on climate change in both research and the media. This trend accelerated in the 2000s, driven in part by high-profile events such as the 2007 report from the Intergovernmental Panel on Climate Change,<sup>8</sup> Al Gore's *An Inconvenient Truth*, and the COP15 conference in Copenhagen.<sup>122</sup>

## TAILORING CLIMATE MESSAGES

BY LAURA MCGORMAN

DIRECTOR OF DATA FOR GOOD AT META

For the past several years, the Data for Good at Meta Program has been partnering with the Yale Center for Climate Change Communication on an international Climate Opinion Survey. In 2022, this survey reached over 100,000 people in over 200 countries and territories and asked about their knowledge of, and attitudes and behavior towards, climate change issues and what should be done to address them. The results paint a picture of deep concern around the world and the desire of a significant majority of people to see governments and others take meaningful action.

Over the course of the last several years, we've learned that there are significant regional, gender-based and age-based differences in how people view climate change, showcasing that we must view this problem through an intersectional lens. For example, although the majority of people in nearly all countries surveyed say they are somewhat or very worried about climate change, these rates are particularly high in many countries in Central and South America, where more than 9 in 10 respondents report worry about the issue.

Similarly, while women are disproportionately impacted and more worried about climate change, they also report knowing less about the issue around the world. As a result, the messages that reach communities about how to combat climate change must all be uniquely tailored and contextually specific to the needs of the population at hand.

## WHERE DID MEDIA GO WRONG?

BY TIM KELLY

EXECUTIVE DIRECTOR OF EARTH HQ, GLOBAL COMMONS ALLIANCE

The dissolution of public media is a worldwide phenomenon with long and varied histories. In the US, the Federal Communications Commission (FCC) Fairness Doctrine of 1949 required broadcast license holders (television and radio) both to present controversial issues of public importance and to do so in a manner that fairly reflected differing viewpoints. The doctrine had two basic elements: It required broadcasters to devote some of their airtime to discussing controversial matters of public interest; and to air contrasting views regarding those matters.<sup>123</sup>

While the original purpose of the doctrine was to ensure that viewers were exposed to a diversity of viewpoints, it was used by the Kennedy and Johnson administrations to combat political opponents operating on talk radio. In 1987, as access to channels began expanding across the US, the FCC abolished the fairness doctrine. Note that the Fairness Doctrine is not the same as the equal-time rule, which is still in place. The fairness doctrine deals with discussion of controversial issues, while the equal-time rule deals only with political candidates.

Different situations have played out around the world, but all with similar outcomes. Many countries perceived public radio broadcasting as an opportunity to support democracy, and they developed well-informed and politically engaged broadcasting. The BBC was the bellwether for this work that was replicated by national governments worldwide. Many of these entities were independent, overseen by government-appointed but autonomous boards, and were fully publicly funded.

But towards the end of the 20th century, cable TV became more widespread in Europe and North America. As the number of broadcast licenses increased, radio and TV audiences began to fragment. At the same time, governments began to privatize utilities – including broadcasting entities, and cut public broadcasting funding. With nowhere else to turn, public broadcasters began to ramp up advertising. By 2000, the broadcasting industry had been transformed. Broadcasting transitioned to a global marketplace of thousands of channels with public broadcasters pushed to the periphery, with dramatically reduced audience shares and smaller budgets.

Fast forward to today, and Facebook and Google dominate digital advertising. Local news organizations have been forced to fire journalists and reduce coverage, which has diminished critical analysis in journalism. With the ever-growing move to digital, many of these organizations have replaced advertising revenue with paywalls to access their digital content, and thereby limiting their distribution to a tiny segment of the public willing to pay for

content. As a result, the media industry becomes evermore concentrated, with large corporate entities like Disney, Discovery/Warner, NBC/Universal, Google, Apple, and Meta essentially controlling the news, sports, and entertainment that the public sees. Ever-increasing competition puts ever greater pressure on media conglomerates to secure readers, sometimes through sensational content driven by an angry user base. This reality vastly limits the widespread dissemination of reporting on science and vital news about saving/sustaining Earth's life support systems, and today, most reporting on these topics is available only through a few outlets with content only available behind paywalls.<sup>124</sup>

Is there a way forward out of this conundrum? In a world in which media distribution is largely controlled by massive technology companies, how can public broadcasters best reach people? With audiences fragmented and people increasingly consuming media alone, is there still a role for programming aimed at big, broad, general audiences? In a world in which gathering and analyzing public input is easy, what mechanisms could public broadcasters develop to increase their responsiveness and accountability? Maybe a large public service coalition of media companies, ad agencies and funders could be a start.<sup>124</sup>

Nowadays it is increasingly difficult to access unbiased media coverage. There is growing concern about the influence of the ultra-rich and industry interests on mainstream media outlets, potentially distorting the conversation around climate action. In the US, just six corporations control 90% of what is broadcast and read, while in the UK, 75% of total newspaper circulation is billionaire-owned.<sup>125</sup>

This narrow level of media concentration creates a risk of skewing public discourse and can limit the diversity of perspectives presented to the public. Corporate interests risk impeding transparent coverage of climate issues and injustices, especially when these topics conflict with their own business operations or political alignments. Hence, there is a critical need for independent, public-interest journalism in promoting informed, nuanced dialogue about climate change and its societal implications.

This situation is further complicated by a constantly evolving media environment. The media landscape is facing challenges such as tribalism and polarization, exacerbating the problem of industry interests shaping discourse around

climate action. Many outlets are now driven by shareholder value, with subscriptions and views taking precedence over nuanced reporting and balanced coverage. This has led to a polarized media environment, where the way in which climate change is covered leads to further division and mistrust. Selective framing and reporting influence the perception of facts, often reinforcing values and worldviews that are incompatible with ambitious climate action.

A healthy media system is crucial for a healthy democracy. Investing in public media systems has been shown to promote democratic values and a more informed public. Yet, a study from the University of Pennsylvania found that the US is lagging behind other democratic countries in terms of public spending on media,<sup>126</sup> as it relies heavily on individual donations. Consequently, US media is greatly commercial, dominated by a few corporations, which is poorly regulated.<sup>127</sup>

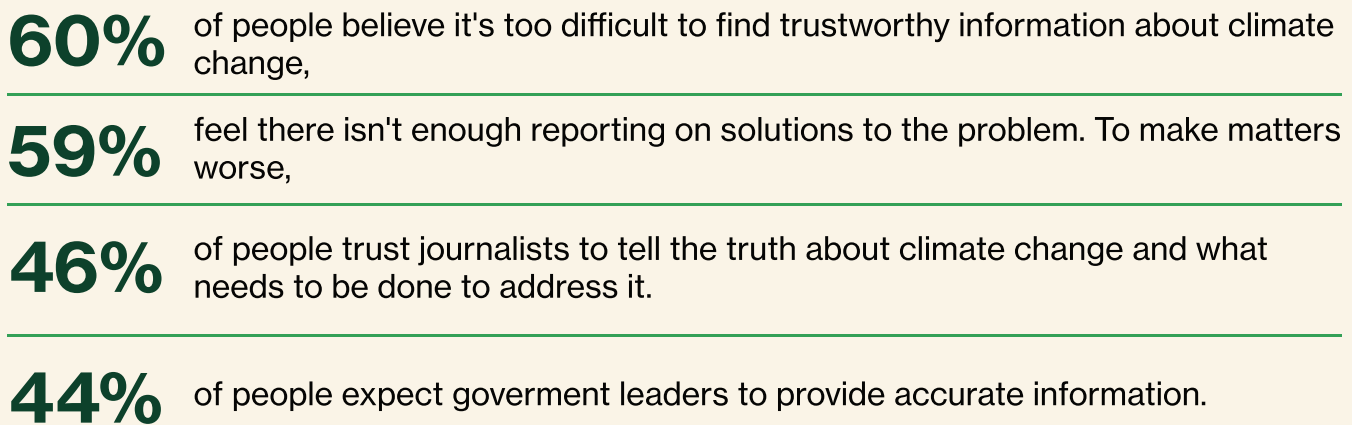
This corporate dominance, alongside other factors, has shaken public trust in the media. Many people feel they can't trust the information they receive from the media. According to a 2022 survey, 60% of people believe it's too difficult to

find trustworthy information about climate change, while 59% feel there isn't enough reporting on solutions to the problem. To make matters worse, only 46% of people trust journalists to tell the truth about climate change and what needs to be done to address it. Trust in government leaders is even lower, with just 44% of people expecting them to provide accurate information.<sup>6</sup> Many people have stopped looking at news altogether: a Reuters Institute survey across six continents found that interest in news has fallen sharply across the world, from 63% in 2017 to 51% in 2022.<sup>128</sup>

Despite this distrust, the power of the media is indisputable, and the way climate change is portrayed in the media is highly influential in shaping our attitudes towards it. Many news outlets

tend to sensationalize the issue with frames that create an image of conflict, leading to the perception that climate action is a contentious topic. Many media discourses on climate change use logical fallacies, whether intentionally or not. For example, it is widely believed that reducing carbon emissions means sacrificing economic growth, or that moving away from fossil fuels means reducing energy security both of which lead to limiting the scope for ambitious climate policies.<sup>32</sup> On the other hand, some media use frames such as urgency or even doomism to emphasize the severity of the situation. While highlighting the urgency of the issue is important, climate doomism, in particular, has been criticized for its negative effects on people's attitudes towards climate change (see 5.2).

## Many people feel they can't trust the information they receive from the media.



Interest in news across 6 continents



Figure 37: Trust in information, journalists and governments in climate change topics.  
Source: Trust Barometer 2022.

In the face of these challenges, we are seeing a shift in media consumption: The United States has one of the highest news-avoidance rates in the world, at 4 out of 10 Americans.<sup>129</sup> Journalist Amanda Ripley argues that current news, even from high-quality outlets, is not designed for humans, as we are unable to cope with the extremely negative framing that news expose us to 24/7. While negative words in news headlines have been found to lead to increased consumption rates,<sup>130</sup> continued bombardment with negativity doesn't bode well for long-term healthy engagement with media. Her research found that the missing ingredients in the news landscape are hope, agency and dignity – as well as providing information that's both actionable and local.<sup>129</sup>

Sources of information have also changed across time. Younger generations rely on social media for news, while older generations stick to traditional sources like newspapers and television. Gen Z and younger millennials get news from social media, around 71% daily and 91% weekly. Moreover, 44% of Gen Zs never recur to traditional sources for news, compared to 35% of younger millennials and 31% of older millennials. Conversely, older generations used to turn to Google for news, but Gen Z is shifting towards platforms like TikTok. The growing social media preference among the younger crowd is pushing major publications to deliver news through platforms like TikTok. While older adults often stick to traditional sources, the shift to social media is prompting larger publications to adapt and cater to the younger audience.<sup>131</sup>

Changes have also occurred in the platforms where people access news. Today, more than eight in ten Americans regularly get their news from an online platform, with more than half of people getting their news from social media.<sup>132</sup> While the minority of people take climate denial seriously these days, division has become a new strategy to stall climate action. Social media platforms have emerged as breeding grounds for misinformation, which can pose challenges

in distinguishing between genuine and fake news. One 2018 study focusing on Twitter showed that fake news is up to 70% more likely to be retweeted than truthful tweets.<sup>133</sup> The use of programmed bots to propagate fabricated information has added to this problem, contributing to confusion, fear and social discord. This division is also driven by discussions which over-focus on individual behavior changes, whilst neglecting the bigger picture.

---

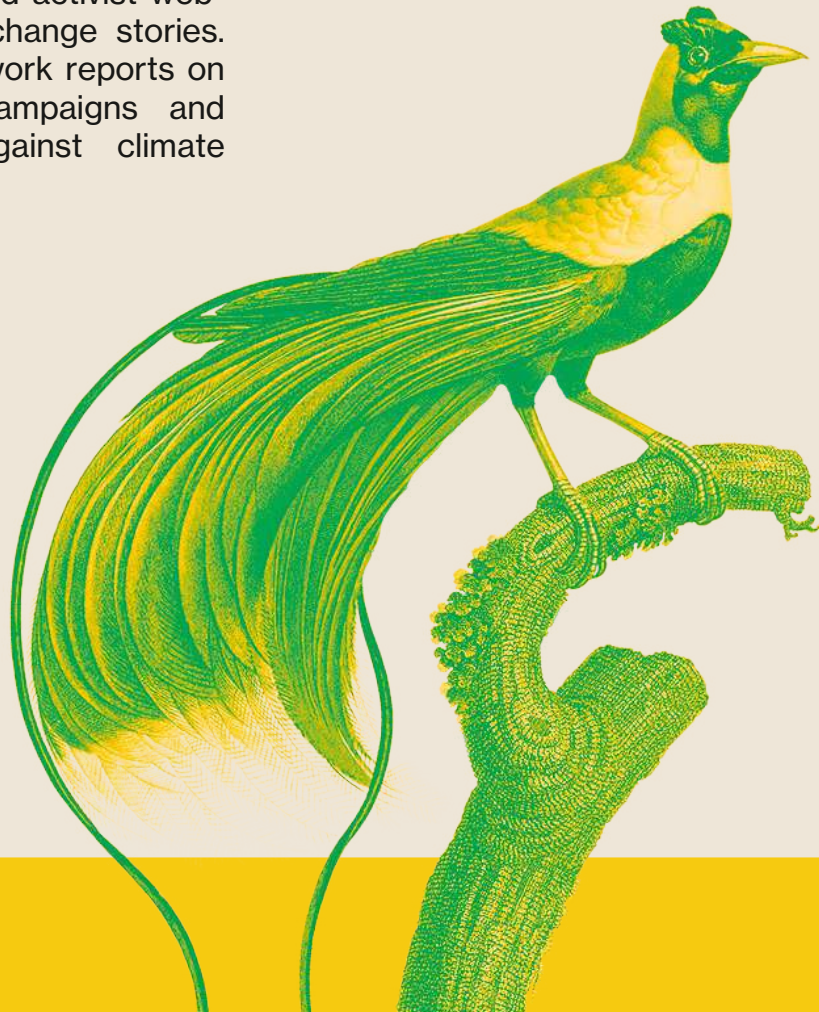
“Of course lifestyle changes are necessary, but they alone won't get us where we need to be. They make us more healthy, save money and set a good example for others. But we can't allow the forces of inaction to convince us these actions alone are the solution and that we don't need systemic changes. If they can get us arguing with one another, and finger pointing and carbon shaming about lifestyle choices, that is extremely divisive, and the community will no longer be effective in challenging vested interests and polluters.”

- **Michael Mann, climatologist, in The Observer**

But there's potential for improvement. The key to more effective climate communication lies in discursive mobility – finding common ground on the bigger picture while disagreeing on specific details. To achieve this, media platforms must introduce more nuanced perspectives that encourage constructive dialogue and avoid reinforcing divisions. While there is some thriving climate journalism, a significant portion of it is inaccessible to the general public as it sits behind paywalls, which restrict its reach and effectiveness.

There are, however, a number of positive examples in the climate journalism space which give hope for the media to act as an integral player in accelerating climate communications:

- The **Oxford Climate Journalism Network** is a program of the Reuters Institute, building a global community of reporters and editors working to improve the quality, understanding and impact of climate coverage across different platforms.
- **Covering Climate Now** is a network and resource sharing platform of over 500 journalists and news organizations across 57 countries, focusing on bringing more climate stories into news coverage as well as informing on the urgency of the climate crisis.
- **DeSmog** is a journalism and activist website focusing on climate change stories. Founded in 2006, the network reports on climate misinformation campaigns and organizations working against climate action.
- **Climate Action Tracker** is an independent scientific project holding governments accountable for their climate policies, producing informative visual resources communicating global heating projections.
- The **Solutions Journalism Network** aims to bring about a global shift in news understanding by communicating solutions to some of the world's most pressing problems – providing nuanced explanations and building agency and hope by supporting 47,000 journalists with tools and resources.



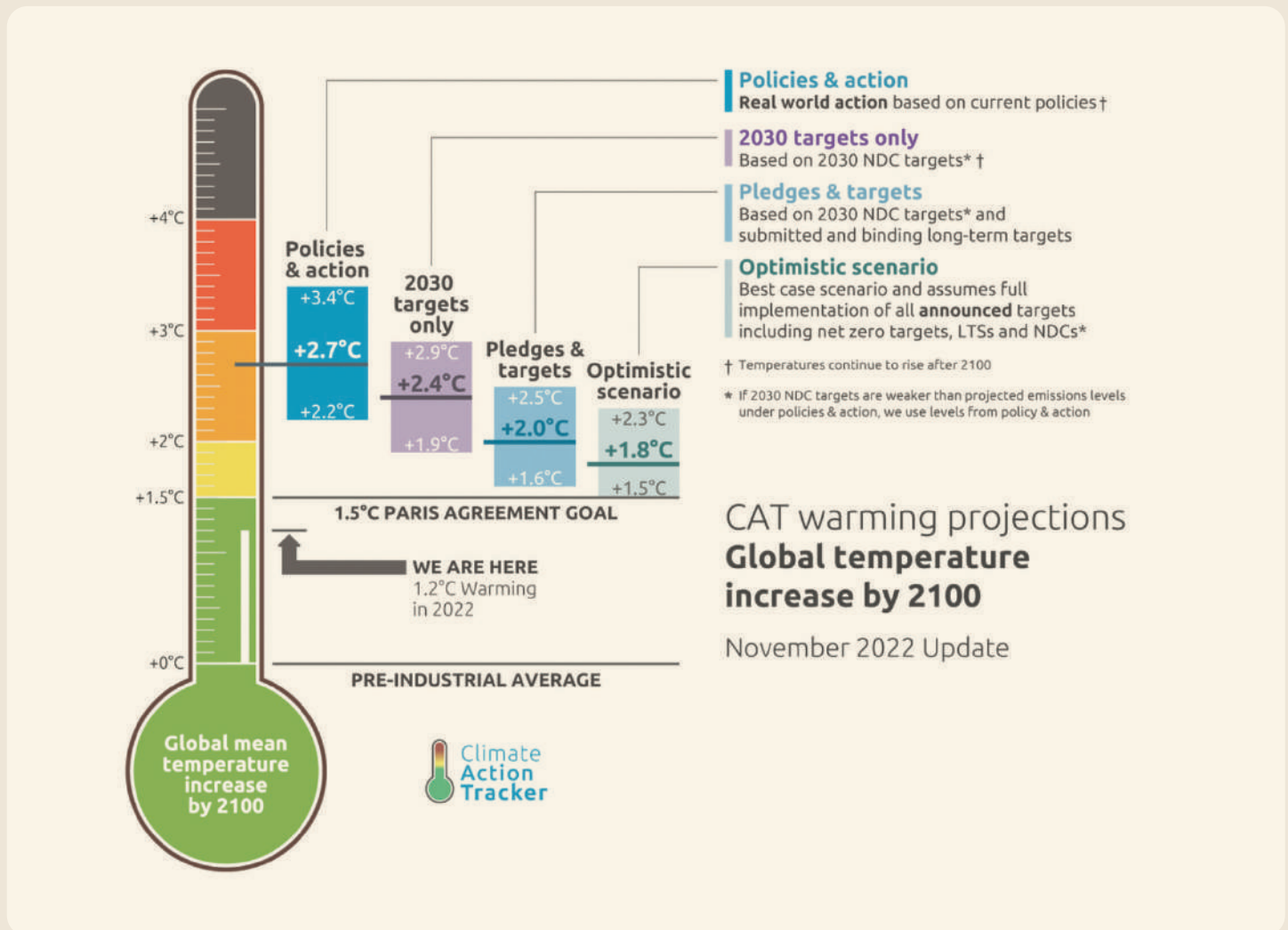


Figure 39: Climate Action Tracker - global temperature increase projections by 2100.

Despite some positive trends, several challenges remain in the media landscape, compounded by the fact that social science research is not taken into account adequately when constructing climate messages. Dominant media narratives portray climate change as a distant, large-scale problem, creating emotional and psychological distance and undermining people's motivation to act. In particular, a strong emphasis on the consequences of climate breakdown and over-focus on the role of national and international policy – rather than people power – can diminish the public's sense of collective efficacy. Further, news media focus is mostly on research from a limited set of journals, often neglecting multidisciplinary research and therefore reducing the diversity of perspec-

tives<sup>110</sup> (see 3.1). Lastly, media tends to perpetuate the knowledge deficit model – which has been effective for raising awareness in the past, but fails to meet the challenge of linking knowledge to meaningful collective action.

The pivotal role of the media in shaping global perceptions and catalyzing action on the climate crisis cannot be denied. Yet, enduring challenges rooted in ownership structures, funding models, and inherent biases threaten its potential for meaningful, positive impact. The emergence of progressive examples showcases the possibility of overcoming these obstacles to foster informed and balanced discourse. Now more than ever, the onus rests on media organizations globally to embrace and further

develop these practices. By doing so, they can not only restore public trust in the media but also play a transformative role in driving cohesive and effective action against climate change. To do this, media must move beyond narrow framings frequently utilized in climate discourses, and zoom out to capture the bigger picture of how climate change is viewed and best communicated on an individual, community and societal level.





### 3.RE:THINK

#### 3.3 WHY WE NEED AN ECOSYSTEM VIEW

To effectively engage the public on the climate crisis, it is necessary to adopt an ecosystem view of climate communication that considers the individual, collective and systemic levels, examining all dimensions of the problem. This means reversing the breakdown of complexity and reintroducing nuance into climate messaging, acknowledging that climate change is not just an environmental problem, but also a social and economic crisis. Communication strategies should therefore address the various impacts climate change has on society, including social justice issues and economic implications. As

part of this, it will be crucial to highlight the need for holistic and collaborative solutions, as well as co-benefits of climate action.<sup>32</sup> Effective communication should emphasize the opportunities for positive change and the potential benefits of taking ambitious climate action.

Ecosystem models can be a powerful tool for communication, and overcome some of the caveats that come with either top-down or bottom-up approaches. Hodson<sup>134</sup> proposes a three level system, with different spheres of influence: micro, meso and macro levels.

## NEW RULES MEANS NEW SCORES

BY ROSS FINDON

FOUNDER OF ROSS FINDON COMMUNICATIONS

Just as we need good intentions to become good actions, we need good actions to be measurable so we can learn, improve and scale. Communications and creativity are extensions of the same business models which have led us to the problems we face today. Our economy is a production and consumption conveyor belt – taking resources, turning them into stuff to sell, throwing it away; it's take, make, waste, on repeat. As creatives and communicators we are tied to this approach. Our work is often paid for by it. Often, we are the connective tissue between corporation and customer, policymaker and voter, cause and supporter.

Just as we have seen other industries start to transform, in the face of public, political, and internal pressure, the creative and communications worlds are starting to shift. And, as we change the game, change the rules, and change the players, we need to think about how we keep score. We need to create clarity about how our work supports positive impact. That means metrics and data that quantify whether we are displacing the bad with the good or just adding to the mountain of stuff. We need to demonstrate that reach and engagement go further than creating awareness and actually drive positive, meaningful action. We need to show the industries we enable, the value of a sustainable and circular economy.

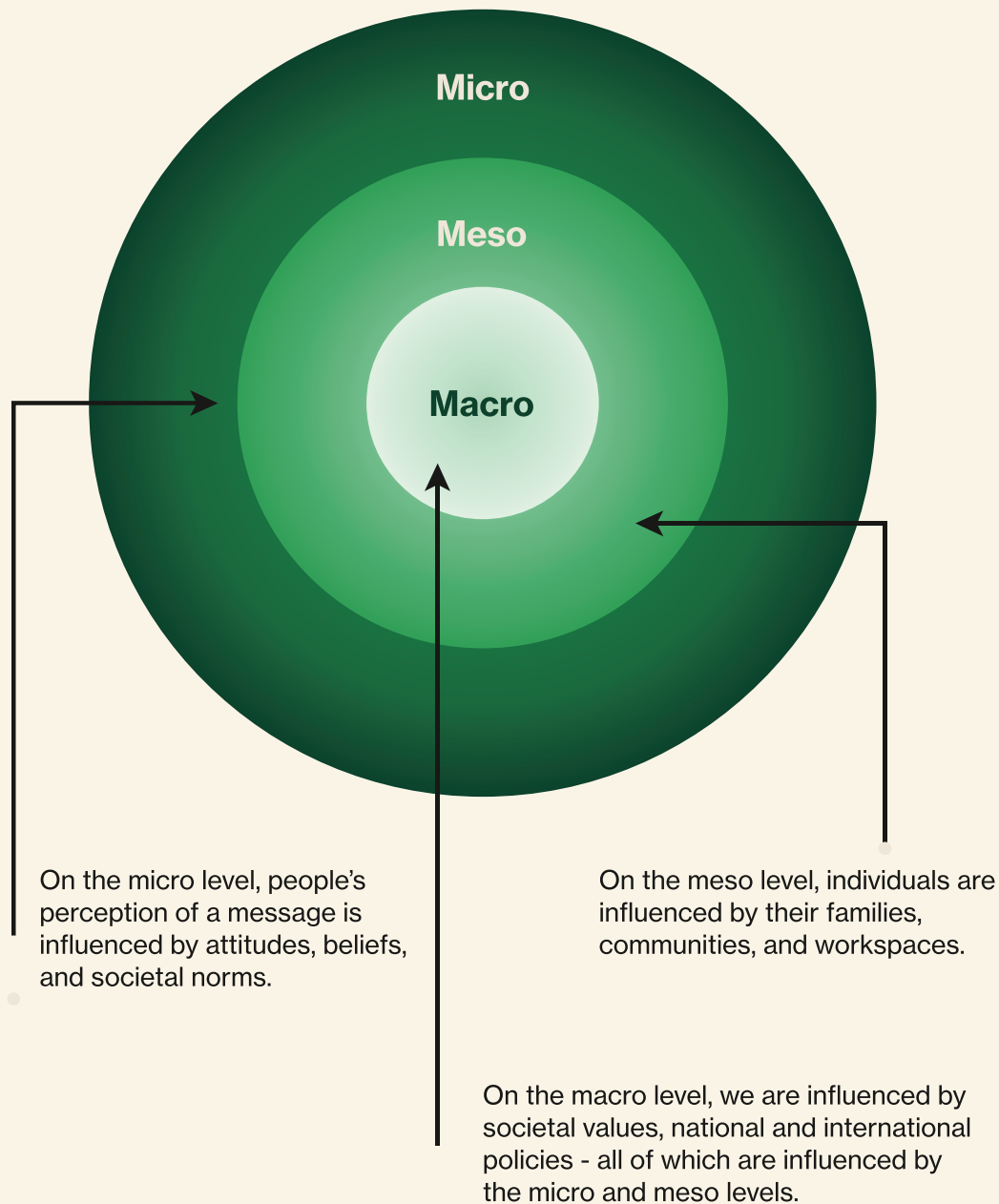


Figure 40: Ecosystem models by Hodson.

In *Minding the Climate*, neurosurgeon Ann-Christine Duhaime stresses the urgency of addressing the climate crisis from multiple dimensions. An effective response to the climate crisis demands change at all levels – from individual choices to organizational and political shifts. Individual decisions on the Micro Level, like choosing to purchase an electric car, hinge on broader systemic support such as affordable

pricing and the availability of charging stations. On the other hand, organizational changes on the Meso Level can only take root if both leadership and employees prioritize environmental considerations.<sup>135</sup>

All of these shifts begin with transforming our mindsets – whether addressing personal carbon footprints on the Micro Level or influ-

### 3.RE:THINK

encing societal and policy directions on the Macro Level, the underlying psychological frameworks governing decision making remain consistent. Understanding how individuals make decisions, and which communication approaches are effective (see 4.3), can help us affect change at larger scales – reaching from the Micro and Meso to the Macro level.

Any new communication effort will need to overcome the fragmentation of the climate movement and NGOs, who sit between the Micro and Macro level and therefore hold power to influence both. The complex challenge climate change poses necessitates a united network working towards a common goal, acknowledging the diversity of perspectives and lived experiences. This will require the creation of a collaborative platform that brings together different actors from different sectors - such as civil society, business, government and academia, working together towards a common goal (see 9.1).

It is clear that climate change needs a stronger media presence to reach the public. Without an informed and engaged public, it will be difficult to build the political will to achieve the necessary changes needed to meet climate and nature challenges. Involving the public across all Ecosystem Levels will be crucial in building support for policy changes and the societal transformation required for a livable planet and a sustainable future.

### 3.3 WHY WE NEED AN ECOSYSTEM VIEW

Addressing the climate crisis effectively requires an approach that encompasses varied sectors and perspectives, harnesses the power of effective language, and navigates the challenges of a complex media landscape. As we work towards a sustainable future, we must craft our narratives in a way that resonates with the public, ensuring that our calls to action are not just heard, but profoundly felt and universally acted upon. One group which has been incredibly effective in doing so, while being persistently underfunded, is the activist community.



### 3.RE:THINK

#### 3.4 THE CASE FOR FUNDING CLIMATE ADVOCACY

---

“The job of activists is to push the pendulums of history in the right direction”

- David Fenton, *The Activist’s Media Handbook*

In the early stages of coordinated climate philanthropy, directly educating and influencing policymakers could drive reductions in carbon emissions across various sectors – but today’s climate policy changes require extensive public support from a diverse array of engaged stakeholders. The future of climate solutions heavily depends on the public’s grasp of how these initiatives benefit them, and their active role in championing these causes. Effective communication is vital in mobilizing this support, helping individuals recognize the value of these efforts, and empowering them to actively contribute to community-specific solutions.<sup>136</sup>

Over the next decade, international collaboration will play a pivotal role in curbing emissions – avoiding wide-spread human suffering, economic decline, and mass-scale species extinction. This monumental task demands transformative strategies across industries, businesses, and governments, which all rely on robust public engagement and corresponding investment.

The role of communication has never been more critical in achieving public backing – influencing both individual and corporate behaviors, and addressing societal challenges. As emphasized by the Hewlett Foundation’s study, the philanthropic arena must shift from targeting elite policies to garnering broad public endorsement.<sup>136</sup> For new funders entering this space, an opportunity exists in combating digital disinformation – which remains underfunded – exerting pressure on digital platforms to step up their efforts in regulating misinformation.

## PHILANTHROPY NEEDS TO STEP UP

BY MARGARET KLEIN SALAMON

EXECUTIVE DIRECTOR CLIMATE EMERGENCY FUND

---

Philanthropic endeavors have played a tremendous role in shaping societies globally, whether by championing health or education initiatives, alleviating poverty, or enhancing culture with performing arts. But in the face of the climate emergency, we need transformative change ultra-fast, and there is a shocking shortfall in the funding of the grassroots climate movement – particularly groups that engage in disruptive protest, which has been virtually unfunded. These groups are powered by volunteer activists – but they need some compensated full-time staff, as well as resources for travel, room rental, food for activists, and action supplies.

From historical precedents and social science, it is clear that disruptive activism – such as sit-ins, road-blocks, hunger strikes, and other high-visibility actions – has the power to reshape public opinion and initiate policy change. From the Women’s Suffrage movement to the Civil Rights era, the world has consistently been remodeled by brave souls daring to challenge the status quo.

In the last few years, we have seen disruptive climate activists push policy forward – whether it is Extinction Rebellion forcing the UK Government to become the first global economy to commit to a legally binding net-zero target, the Sunrise Movement and other protestors making the Inflation Reduction Act possible, or Futuro Vegetal pushing the Spanish government to ban new large-scale cattle farms. We are seeing over and over that disruptive protest works.

And yet this form of protest is grossly underfunded. Extinction Rebellion, for example, has a budget 450 times less than the World Wildlife Fund.<sup>137</sup> New activist groups – which are springing up all the time – have an incredibly difficult time finding any funding at all. Climate philanthropy should be funneling resources towards these activist movements as quickly as possible.

Climate activists, unlike established charitable organizations, might not possess sophisticated fundraising know-how. They are often unschooled in donor liaisons or financial planning, which, rather than being deterrents, underscore the purity of their cause. These are individuals from diverse backgrounds, driven by commitment, risking personal liberties for the collective good. Intermediaries like the Climate Emergency Fund, Equation Campaign, and Global Green Grants can be key in facilitating relationships between philanthropy and activists, as well as shielding donors from potential legal or reputational risks.

Even as disruptive climate activism has risen to public attention, gotten billions of media hits, and won legislation, philanthropy passes it over in favor of less “risky” or “controversial” approaches that work within the system. Disruptive activism might be an inconvenience, but it is also an essential. Activists are fighting the good fight. It's high time philanthropy stepped up – not out of mere obligation but an inherent duty to future generations. If, as Bill McKibben states, “Winning slowly is the same as losing,” then the time for swift and decisive support is now.

The rise of youth-led climate initiatives significantly influenced global climate policy and the broader movement. Yet, there is an urgent need for greater financial support for these groups, particularly through philanthropy. Research by Climateworks Foundation shows that youth-led initiatives receive less than 1% of climate mitigation funding from the world's largest climate foundations. This lack of financial backing inhibits their ability to drive change, especially as youth movements often rely on volunteers and grassroots mobilization – making them vulnerable to burnout, security risks, and lack of diversity.<sup>138</sup>

**RECOMMENDATION:** Philanthropic practices often overlook smaller, newer groups due to their unconventional structures. Philanthropic bodies should rethink their grantmaking approaches, adopting more youth-friendly practices such as flexible, low-administration grants which would help facilitate youth-led initiatives advocate for urgent, intersectional, justice-focused climate action. Foundations have an important opportunity and responsibility to leverage their resources to amplify the work of these campaigners – especially in underfunded areas in the Global South.

## SOCIAL CHANGE STARTS WITH ACTIVISM

BY RAJIV SHAH

PRESIDENT OF THE ROCKEFELLER FOUNDATION

Large-scale change requires large-scale understanding of the problem, and large scale enthusiasm for being part of the solution. Experts, advocates and activists have led the charge for many years – and then all of a sudden, everyone else joins the effort. You can go through so many different examples – from the Civil Rights Movement to when LGBTQ rights became more enshrined in American law over the last decade. We need the activist to be on the front line, and we have to have faith that at some point, we'll hit that tipping point. And people will begin to believe that in fact, they can make a difference. It's when we hit that tipping point that we really start to accelerate change.

Young people have been the loudest voices, and most great social change starts with their activism. So we need young people to be incredibly confident and to hold everybody else to account, including themselves. The parts of the youth movement I'm most impressed with are those young people I see at global meetings, who know the data and understand the shallowness of some of the big corporate and global commitments around net zero by 2050. And that all these things happen too slowly, too far into the future. I want to encourage young activists to be confident, well-informed, and hold larger institutions to account – because there is too much broad commitment to change way into the future, and not enough action today.

Youth-led groups are not the only ones that remain critically underfunded: despite the significant impact that BIPOC-led climate organizations – such as the Climate Justice alliance and Indigenous Environmental Network – have made in promoting renewable energy policies and addressing community impacts of the climate crisis, research shows that these organizations receive a mere 1.3% of total climate funding. The Donors of Color Network is campaigning to direct at least 30% of all US climate funding to BIPOC-led groups – the conversation around donor priorities extends beyond climate justice into voter rights and political engagement, highlighting the need to fund BIPOC-led organizations adequately. As the US government shifts its funding focus towards

BIPOC entrepreneurs for climate innovation, it's time for philanthropy to follow suit.<sup>139</sup>



## Despite the significant impact that BIPOC-led climate organizations

Such as the Climate Justice alliance and Indigenous Environmental Network have made in promoting renewable energy policies and addressing community impacts of the climate crisis, research shows that these organizations receive a mere

**1.3%** of total climate funding.

**The Donors of Color Network is campaigning to direct at least**

**30%** of all US climate funding to BIPOC-led groups

*Figure 44: Mismatch between funding and impact by BIPOC-led climate organizations.  
Source: Forbes.*

## ON BEING A YOUNG CLIMATE ACTIVIST IN UGANDA

BY NYOMBI MORRIS

CLIMATE ACTIVIST

My mission is to be a spokesperson and mobilize young people to take action. My contribution to the movement has been to bring young people together and equip them with climate and campaigning knowledge through school strikes and climate education projects. Since 2020, I have worked with more than 20 schools and planted trees, both with school children and local communities.

In Uganda, being a climate activist requires more than bravery – you must also be willing to spend money. We are not supported by local organizations, as they perceive us to be against the government; the police sometimes arrest us simply for protesting.

Securing funding for our activities is a struggle. Many organizations in the global north are willing to support you if you want to carry out protests or demonstrations, but running educational projects aimed at young people receive a lot less support. As a result, sometimes we need to use our own money – which we do out of passion, but we shouldn't have to.

## Funding of environmental organizations

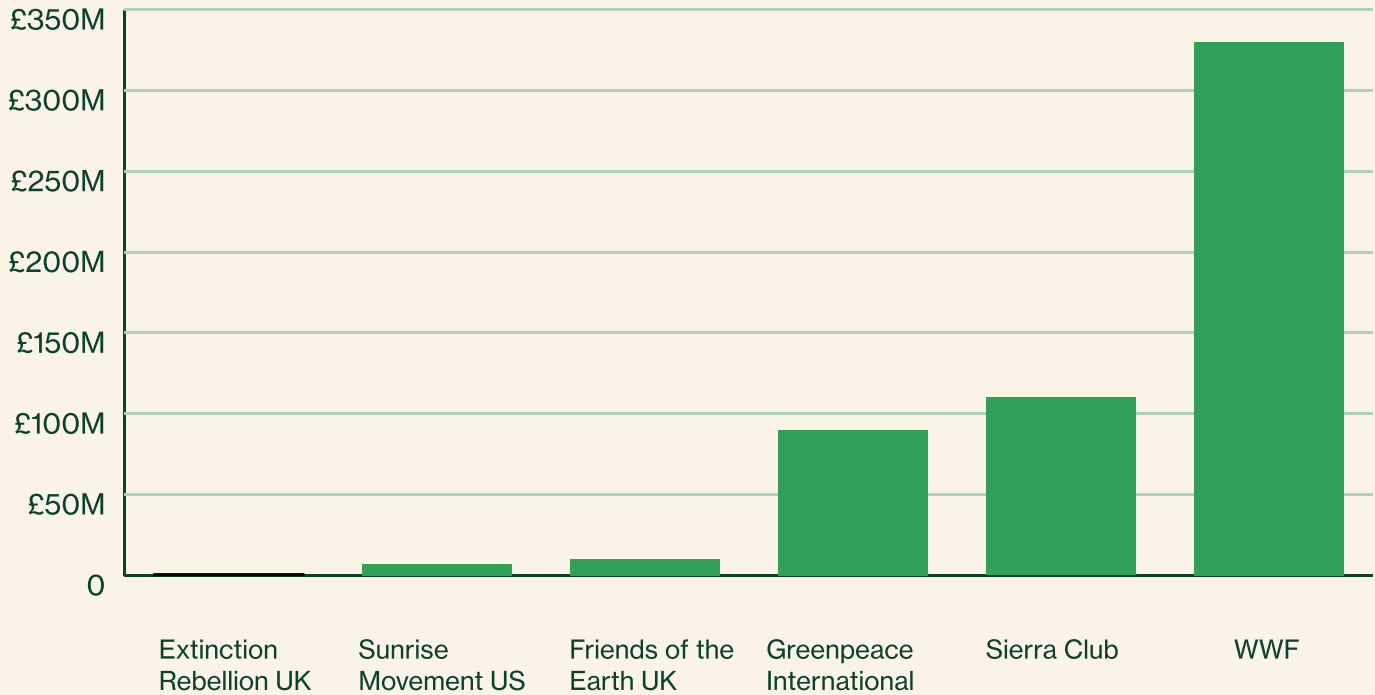


Figure 41: Sources of funding of environmental organizations.  
Source: Stanford Social Innovation Review.

Protest movements have become increasingly popular in recent years, with the number of movements tripling from 2006 to 2020. Still, many of these movements are underfunded, under-resourced, and ignored by philanthropists. Historically, protest movements have instigated large scale social change but receive dramatically less funding compared to charities and NGOs working on similar issues. For example, Extinction Rebellion (XR)’s annual income sits at £750,000 – compared to Greenpeace International at about £75 million, a hundred times larger but not nearly as cost-efficient in terms of carbon reduction.<sup>137</sup>

Analysis by Social Change Lab found that climate-focused movements such as Extinction Rebellion (XR) perform better than even the

most successful charities in terms of carbon emissions averted per dollar spent on advocacy. What’s more, funding activist groups can achieve a hundred times the amount of CO2 reduction compared to carbon offsetting. While these analyses aren’t fully conclusive, these stark trends cannot be ignored.

Protests can drive social change in a number of ways – such as changing public opinion, shifting public discourse, influencing policy, and affecting voting behavior. After a period of mass protest by Extinction Rebellion in the UK, public concern for the climate increased significantly. Protests can also directly influence the way the media, politicians, or the public talks about certain issues – in particular through movements’ proliferation on social media.



### Tonnes of carbon dioxide removed per pound spent

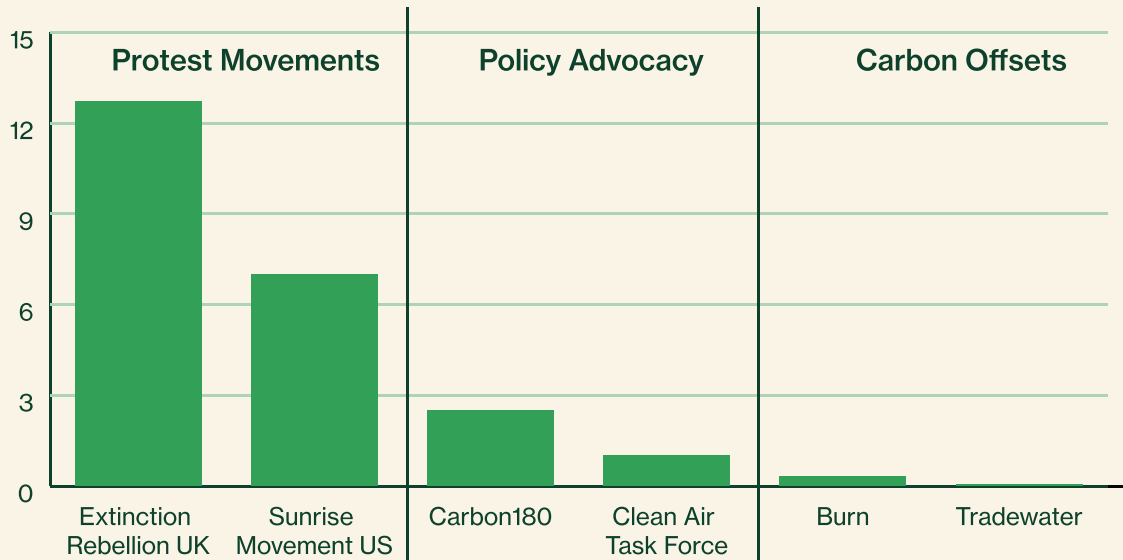


Figure 42: Estimated cost-effectiveness of tonnes of carbon dioxide removed per pound spent. Source: Stanford Social Innovation Review.

The role of the philanthropic sector in social change is not to be underestimated, and in fact it has a responsibility to help catalyze climate action by supercharging investment in solutions.<sup>31</sup> Research by HERO, a subscription platform which raises funds for activists, conducted a survey which found that 83% of activists are unable to focus their time solely on their advocacy for financial reasons – whilst often putting in full-time hours into their campaigning work.<sup>140</sup>



## APPETITE FOR CHANGE

BY KUMI NAIDOO

CLIMATE AND HUMAN RIGHTS ACTIVIST

In recent years, and even through the COVID-19 pandemic, social movements have seen unprecedented growth. Since 2015, social movements such as Black Lives Matter, Extinction Rebellion, Me Too and Fridays For Future have seen a dramatic rise in the participation and sway that they have on the general public.

There is an important distinction that needs to be understood when examining these more recent formations of civil society and what has come before it. These new movements seem to have set their sights not only on the symptoms of the various ailments in our society, but they are taking aim at the structural and systemic causes of the current failing system.

What we have seen more evidently after the global economic recessions of the 2008 financial collapse and the COVID-19 pandemic is that the appetite for structural and systemic change is at an all-time high and is felt in all corners of civil society movements, including the climate movement. Young people have been showing up in greater and greater numbers to push those in power to act decisively. That is not to say that this tendency constitutes a critical mass or a majority, but it is a much more visible and growing body of opinion and practice.

Funding activist groups is a highly effective way to create positive change, and can happen either directly or through an umbrella organization which delivers grants to groups. James Ozden, founder of the Social Change Lab, suggests five factors<sup>137</sup> that can help philanthropic organizations and individuals identify groups with potential to bring about fast-tracked policy change:

- A clear purpose and shared values
- A strategic theory of change
- A clear governance and process especially on difficult issues such as compensation and internal conflict
- Ambitions to scale through a focus on recruitment
- Diversity in participation and unity in messaging and group coherence

The important role of activism has become undeniable in recent years, as a number of key policy wins demonstrate. But much of their progress is slowed down – or even hindered – by a persistent lack of funding, despite grassroots and youth-led groups operating at the frontlines of social change. Philanthropy has been historically instrumental in shaping societal trajectories, and now has a once-in-a-lifetime opportunity to shape the course of history beyond traditional paradigms. Rectifying this lack of funding is not just a matter of equity, but of efficiency – giving the philanthropic sector a chance to make lasting impact through tangible climate solutions. We call on philanthropy to step up to the challenge and amplify some of the most powerful communicators and change-makers we could hope for.

## CHAPTER 4 – RE:WIRE

# OUR BRAIN AND CLIMATE CHANGE

---



#### 4.RE:WIRE

**C**limate change presents the most pressing challenge of our time, demanding urgent and coordinated action from governments, businesses, and individuals alike. Addressing this complex issue requires an understanding of not only scientific and technological aspects, but also the human behaviors and psychological factors that drive our responses to the crisis.

The climate crisis is not just an abstract environmental issue – it's deeply personal. But to address it effectively, we must understand how our minds process, react to, and engage with this global challenge. Several key questions arrive: How do we perceive the obstacles to climate action? In what ways do those perceptions shape our action – or inaction? What is the role of emotions in communicating the reality of our collective situation? And given the growing evidence that the climate crisis is impacting our mental health, can psychological insights be used to foster positive individual, community and system-level responses?

Behavior change is a critical component of this discussion, yet it needs to be seen in the broader context. Individual actions must be complemented and facilitated by transformations at the system level – from industry, policy to education. A well-informed public is key to driving these changes – but information transmission alone is insufficient. This section aims to dispel

the prevalent binary view of individual action versus systemic change, advocating for a more holistic approach instead.

Effective climate communication can help us bridge the often-highlighted gap between awareness and action, as well as between personal action and larger systemic shifts. To grasp the power of communication, we must understand the interconnected nature of individual beliefs, societal values, and the overarching systems they're situated in. Psychology plays a pivotal role in explaining our responses to the climate crisis, but also in shaping pathways to a more sustainable and resilient future. By connecting the dots between the human mind, society and the environment we're embedded in, we can use psychological insights to shape meaningful action against climate change.



## 4.RE:WIRE

### 4.1 THE PSYCHOLOGY OF CLIMATE CHANGE

“Action on climate change revolves around our understanding of how we perceive this global challenge, and its significance for our own lives. Psychologist and climate communication expert Per Espen Stoknes’ seminal work *What We Think About When We Try Not to Think About Global Warming* examines the psychological dimensions underpinning collective inaction on climate change. Stoknes identified five core barriers<sup>141</sup> to engagement with the climate crisis:

**Distance:** Many people perceive climate change as an abstract issue in the future, affecting faraway places and future generations. This temporal and spatial gap reduces the perceived relevance and urgency of the issue for many individuals.

**Dissonance:** Cognitive dissonance arises when one’s actions – such as flying or consuming meat – don’t align with one’s beliefs on sustain

ability. To manage this internal conflict, people might downplay the severity of climate change or detach themselves from the issue.

**Denial:** When confronted with the enormity and complexity of climate change, some may opt for outright denial – a defense mechanism to ward off the looming threat and maintain a semblance of normality.

**Doom:** The apocalyptic narratives often dominating climate headlines and discussions can lead to paralysis and a sense of helplessness. Continuous exposure to alarming information without a clear action path can cause denial or apathy.

**Identity:** People’s beliefs around climate change are often deeply tied to their cultural, political or social identities. Challenging those beliefs can be perceived as a personal attack, leading to existing views being further entrenched.



Figure 52: Five barriers to engagement with the climate crisis.  
Source: Per Espen Stoknes.

### WHICH FACTORS INFLUENCE HOW WE PERCEIVE RISK?

The Social Amplification of Risk Model illustrates how public responses can intensify or minimize the perceived risk of hazards such as climate change. Risk communication and perception are not solely based on facts and data, and our understanding and response to risks is heavily influenced by human behaviors, beliefs, values, and social structures – making our response to climate change highly dependent on communications. Regardless of expert analysis, some hazards assessed as low-risk can receive significant attention, leading to risk amplification. Conversely, hazards deemed higher in risk may receive less societal focus, a phenomenon termed risk attenuation.

'Amplification stations' such as scientists, media outlets, and social networks have pivotal roles in this process. They transmit and interpret risk information, causing “ripples” of public responses that can lead to impacts such as economic downturns, trust erosion in institutions, political activism, and altered perception of other associated issues. For example, the controversy over fracking for gas in the UK negatively impacted people's perceptions of CO2 removal

technologies – here, the 'ripple effect' across technologies was fueled by public distrust in experts and policymakers. In today's digital age, social media plays an instrumental role in the global dissemination of these ripples. It serves as an amplifier – merging the roles of information provider and consumer – which can significantly influence risk perception.

Our responses to risks are heavily dependent on human psychology, social networks, media ecosystems, and trust levels in authority figures. Therefore, effective communication about climate change requires careful management and understanding of these nuanced aspects.<sup>142</sup>



## 4.RE:WIRE

According to Stoknes, the abstract nature of climate change communication can often be a barrier to engagement. Therefore, we must make climate concerns tangible, relatable, and embedded in our daily routines. By integrating sustainable choices into everyday activities, we can make sustainability the norm rather than the exception – reinforcing positive behaviors and making climate action a habitual part of our lives. However, Stoknes also emphasizes the importance of systemic solutions – while individual actions play a role, structural changes in policy, industry and institutions are crucial for large-scale impact.<sup>141</sup>

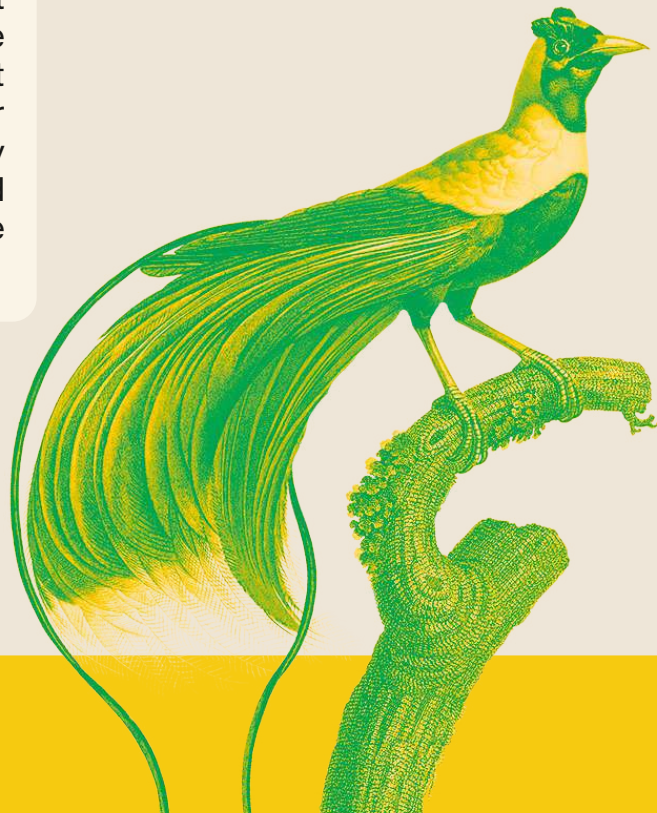
### GLOBAL WARMING'S SIX AMERICAS

The Yale Program on Climate Change Communication (YPCCC) identified six distinct climate opinion audiences in the American public - the Alarmed, Concerned, Cautious, Disengaged, Doubtful, and Dismissive. The Alarmed are most engaged with climate issues, worry about climate change and support climate action. The Concerned also believe the science, but are less concerned and less likely to take action. The Cautious are uncertain about whether climate change is happening or human-caused, and are therefore less likely to worry or take action. The Disengaged are largely unaware of the issue. The Doubtful question the science on

## 4.1 THE PSYCHOLOGY OF CLIMATE CHANGE

climate change and perceive it as a low risk. The Dismissives reject the idea that climate change is happening and strongly oppose climate policies.<sup>120</sup>

Based on a nationally representative survey conducted in April-May 2023, Yale found that the majority of Americans recognize the reality and significance of climate change. Specifically, 74% believe global warming is happening, and 61% attribute it primarily to human actions. While 58% understand that most scientists agree on this issue, only 20% are aware of the extent of scientific consensus. Two-thirds of respondents express concern about climate change, but 66% rarely discuss the topic with peers. Over half feel personally responsible for mitigating the effects of climate change, yet only 28% actively seek out information about potential solutions.<sup>143</sup>



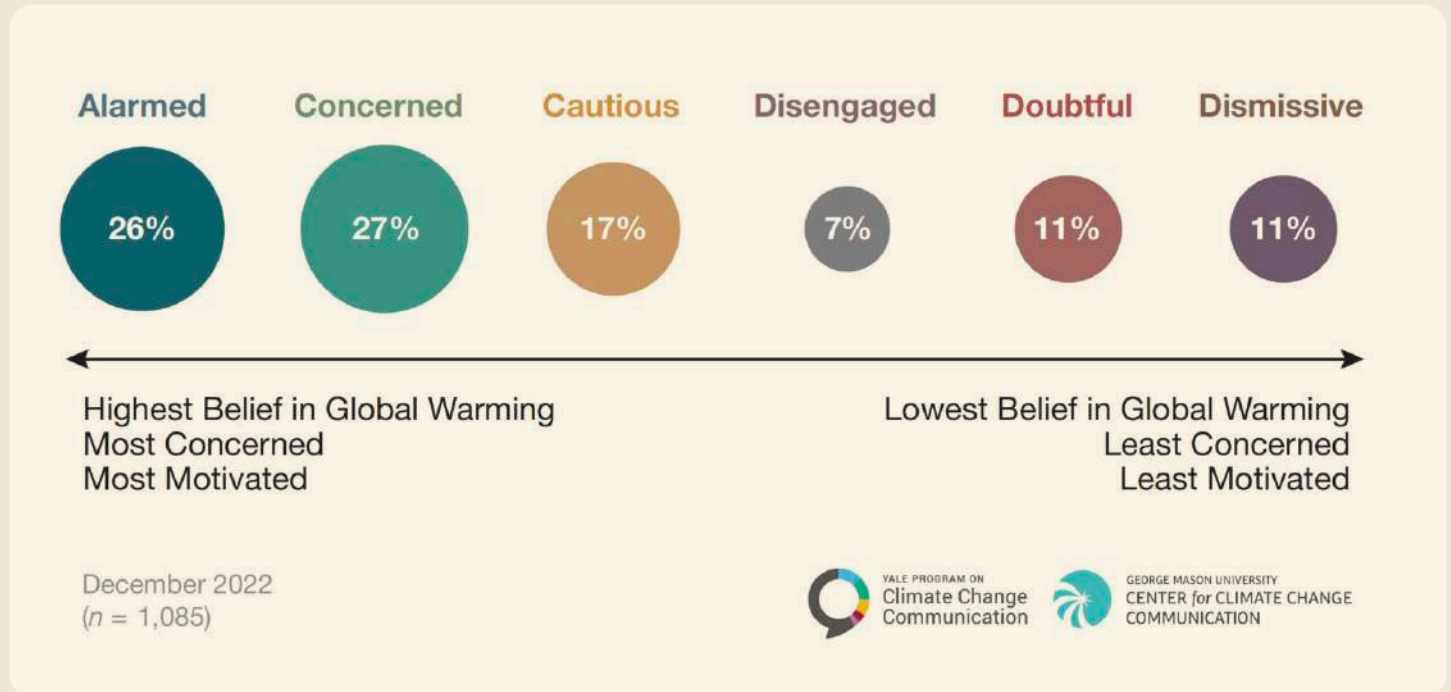


Figure 45: Global Warming’s Six Americas regarding belief and concern about climate change, and motivation to act. Source: Yale Program on Climate Change Communication.

In 2022, YPCCC teamed up with Data for Good at Meta, surveying Facebook users in nearly 200 countries to assess public perspectives on climate change. Results indicated that the Alarmed category was the majority in about 75% of the 110 countries surveyed – particularly prevalent in Chile, Mexico, and Malawi. In the US, a major carbon emitter, only 34% of people are Alarmed, with 22% being in the Doubtful or Dismissive categories.<sup>144</sup>

The US and Germany have the fourth-smallest percentage of Alarmed (34%), after the United Kingdom (31%), Saudi Arabia (29%), and Indonesia (27%). On the other end of the Six Audiences spectrum, the countries with the largest percentages of Doubtful or Dismissive respondents are the United States (22%), Saudi Arabia (17%), and Australia (16%).<sup>144</sup>





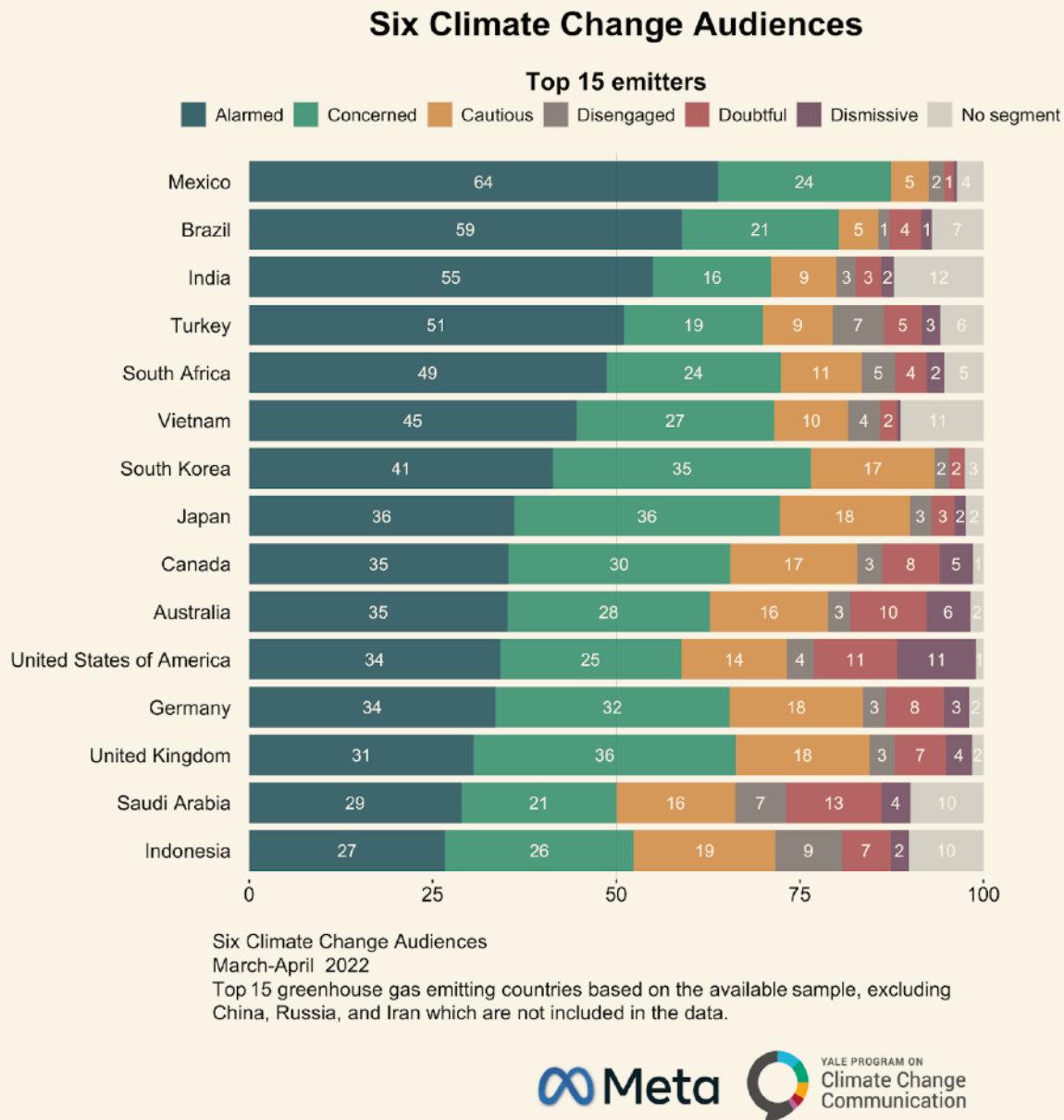


Figure 53: The Six Climate Change Audiences, by the Yale Program on Climate Change Communication.

Research by firstlight shows that climate deniers make up a small minority of the UK population (5%), but together with delayers - those who think we shouldn't be too concerned about climate change - they make up a quarter of the public. Some delayers are skeptical and believe that climate change is not a serious problem, will not affect them, or that climate action comes with hidden agendas. Many remain dis-

engaged because of a feeling of helplessness - climate change is a massive topic most people don't know how to tackle.<sup>111</sup> Many UK adults experience climate change fatigue, meaning that they are exhausted from hearing about climate change all the time, whilst not understanding the issue and what they can do about it sufficiently.

**42%****of the general public feel that they're being lectured about climate change****56%****of people cannot confidently explain what Net Zero means****52%****feel powerless in the fight against climate change**

Figure 46: Knowledge transfer on the receptor side, understanding of net zero, and attitude towards climate change action.

Source: Firstlight Research Group.

Ann-Christine Duhaime, neurosurgeon and author of *Minding the Climate*, argues that rather than focusing solely on technological fixes, we need to examine human behavior, as individual and collective behaviors have been slow to change in response to this urgent crisis with critical time limits. The COVID-19 pandemic and energy price crisis have forced governments to demand radical lifestyle shifts, proving that such changes are possible in theory. However, behavioral change is complex, and policies can often be contradictory, reinforcing existing resistance to change.<sup>145</sup>

---

“To understand the paradox of our inactivity in this outward-facing, global-scale problem of climate change we need to look inward, at how our brains work. Within these insights (...) lies potential for change, and some cause for hope.”

- Ann-Christine Duhaime, Neurosurgeon and Author, Harvard Medical School

## 4.RE:WIRE

The human brain possesses plasticity – making it highly adaptable in response to environmental demands. But our reward mechanisms, which have been shaped throughout millions of years of evolution, haven't kept pace with the rapid cultural and technological changes of modern times – particularly the overwhelming amount of marketing directed towards young people. This has consequences for consumption habits and choices, which often prioritize short-term rewards over abstract long-term factors such as sustainability.<sup>135</sup>

---

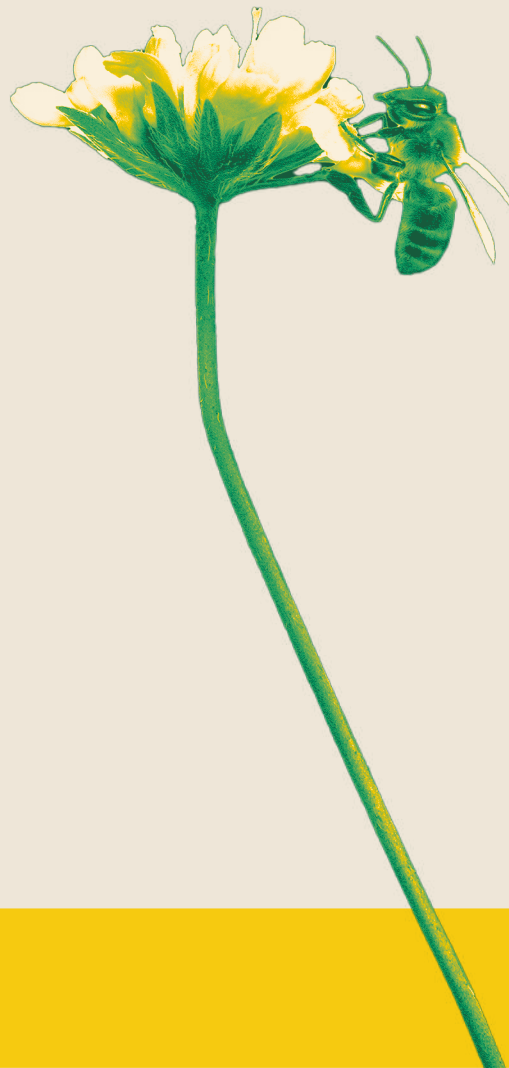
“Thanks to our evolutionary history, we're programmed to deal with the lion coming from the woods, not to strategize how to save our civilization over the next hundred years.”

**- Ann-Christine Duhaime, Neurosurgeon and Author, Harvard Medical School**

Another barrier to climate action is uncertainty, which has been exploited by industry interests to undermine ambitious climate policy. Climate XChange recommends that scientists should highlight broad areas of agreement and consensus, followed by positive framings of probabilities, which have been found to lead to stronger pro-environmental intentions.<sup>32</sup>

## 4.1 THE PSYCHOLOGY OF CLIMATE CHANGE

For example, instead of saying, "If we fail to act, the chance of destructive winter floods occurring is 80%", we can say, "If we act now, the chance of destructive winter floods occurring is 20%".



# WHY OUR BRAINS STRUGGLE TO PROCESS CLIMATE CHANGE

BY ANN-CHRISTINE DUHAIME

NEUROSURGEON & AUTHOR, HARVARD MEDICAL SCHOOL

Decisions leading to changes in behavior are mediated by the equipment we use to make them – the human brain. To understand why addressing climate change and promoting a just energy transition has proven to be a difficult problem for contemporary humans, it may be helpful to take into account the tasks for which our decision-making apparatus evolved to address, and to compare these to the current changes in priority and action we need to make to avert the worst of the ongoing and accelerating environmental crisis.

While it should be kept in mind that the brain is flexible and is less hard-wired than predisposed, evolutionary selection pressures for short-term survival equipped humans with systems for evaluating decisions that use sensory information and memory, weighted by innumerable small genetic and experiential factors at any given moment, to evaluate choices. While humans do have the capacity to think ahead, our nervous systems generally weigh decisions and help us learn which behaviors are ‘best’ and most rewarding by favoring near-term, immediate survival-based consequences.

Climate change, in contrast, is an extraordinarily recent problem when stacked against the eons of time during which our nervous systems evolved, based on the design underpinnings of ancient organisms. As one example, we never had a survival need to develop mechanisms to directly perceive CO<sub>2</sub>, never mind learn to weigh a largely invisible threat when evaluating minute-to-minute decisions.

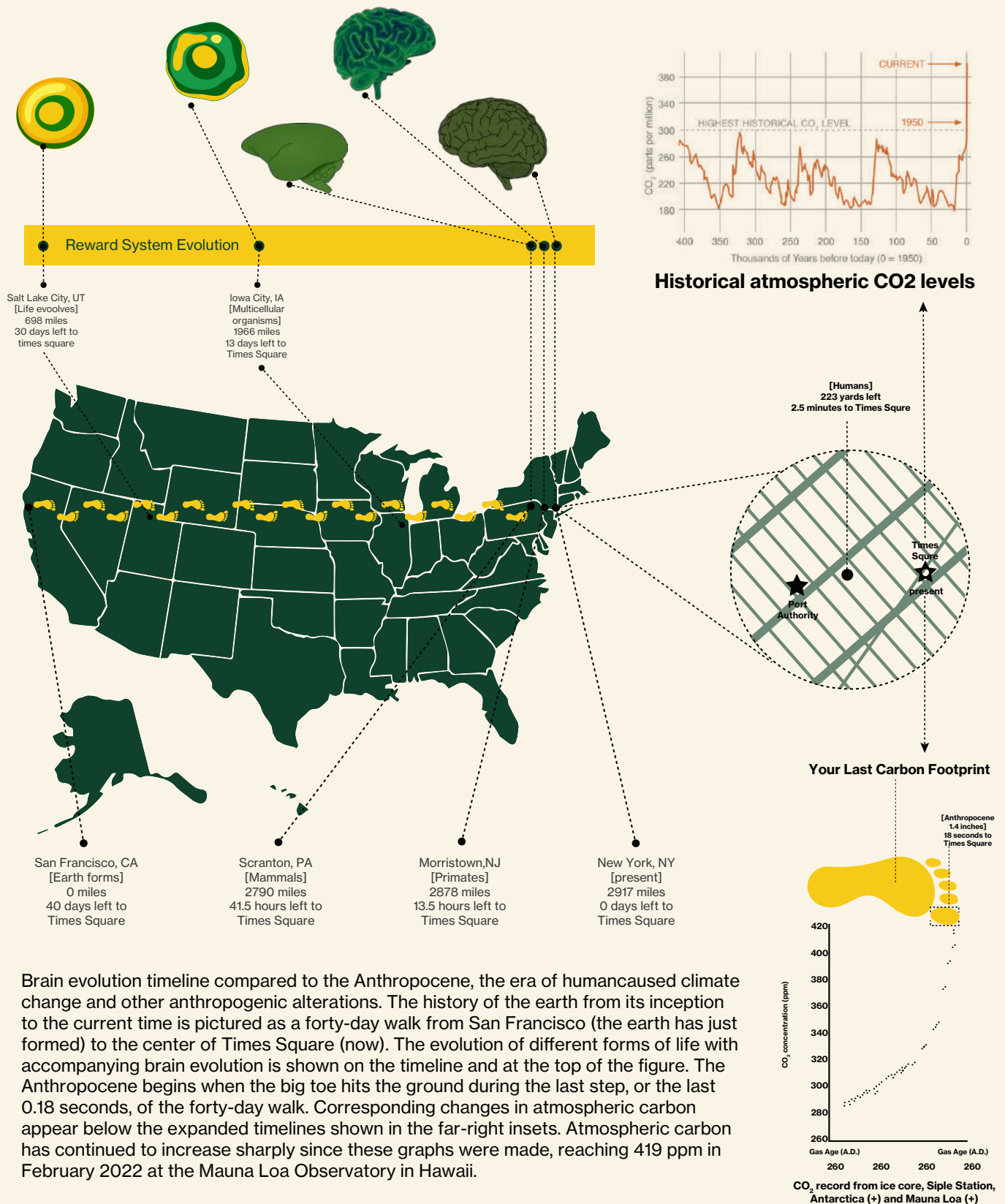
While storms, floods, fires, and droughts are happening with increasing frequency and severity, there is nothing in our evolutionary or long-standing cultural history that has equipped us to readily and smoothly link the behavioral choices causing climate change to those consequences; in fact, they are much more easily linked mentally to normal variations we learn about or experience ourselves. Linking these events to climate change requires trust in authority figures, most of whom are not known personally, who provide information about which the recipient has little first-hand knowledge or expertise. Even if the information is accepted as true, making decisions to change behaviors in order to mitigate climate change requires an even greater leap of faith. This is because such choices usually lack another characteristic for which our brains are well-designed – evaluating our own decisions by their immediate effects.

While making a purchasing decision or business decision typically leads to consequences that are apparent in relatively short order, many of the consequences of individual pro-environmental decisions occur at such a scope and magnitude, that they remain largely invisible to the decision-maker. Together, these factors are a recipe for difficult behavior

change. This is true whether the decision occurs at the level of an individual's personal life, or at the level of a decision affecting many people, such as those made by a business executive, a policymaker, educator, legislator, or government leader.

Throughout history, humans have managed to overcome significant challenges that required major social and behavioral overhauls. However, addressing climate change poses unique obstacles, as the required behaviors often lack immediate rewards. People are more likely to feel effective and positive by providing immediate assistance – like sending money to flood victims – than by engaging in long-term behavioral changes that address the root causes of flooding.<sup>145</sup>





Brain evolution timeline compared to the Anthropocene, the era of humancaused climate change and other anthropogenic alterations. The history of the earth from its inception to the current time is pictured as a forty-day walk from San Francisco (the earth has just formed) to the center of Times Square (now). The evolution of different forms of life with accompanying brain evolution is shown on the timeline and at the top of the figure. The Anthropocene begins when the big toe hits the ground during the last step, or the last 0.18 seconds, of the forty-day walk. Corresponding changes in atmospheric carbon appear below the expanded timelines shown in the far-right insets. Atmospheric carbon has continued to increase sharply since these graphs were made, reaching 419 ppm in February 2022 at the Mauna Loa Observatory in Hawaii.

Figure 54: Carbon footprint of different species across the brain evolution timeline. Source: "Minding the Climate", by Ann-Christine Duhaime.

Cognitive biases, such as mental shortcuts or heuristics, can serve as barriers to action when it comes to long-term challenges like climate change. The psychological distance and slow pace of climate change impacts contribute to a spatial and temporal dissonance,<sup>32</sup> making people believe that climate change is a distant problem that won't directly affect them. This dissonance can be exacerbated by dominant climate narratives that focus on remote regions and non-human actors ([see 2.2](#)), further alienating people from the all-encompassing effects of climate change.



Cognitive biases	Description	Effect on climate action
<b>Confirmation bias</b>	The tendency to seek out and remember information that confirms one's pre-existing beliefs	Only pay attention to or trust sources that support existing beliefs about climate change, and whether they believe it is a threat or not
<b>Availability heuristic</b>	Mental shortcut of judging the probability of an event based on how easily examples come to mind	Overestimating the significance of a single weather event, such as a usually cold winter, and use it as evidence against climate change - disregarding the overall trend of increasing global temperatures
<b>Anchoring bias</b>	Relying too heavily on an initial piece of information (the "anchor") when making decisions	Anchoring beliefs on an outdated piece of information, such as a specific study, and resistance to updating views based on new evidence.
<b>Sunk Cost Fallacy</b>	Tendency to continue investing in a decision based on the amount of resources already invested, rather than evaluating the current and future value of the decision	People, governments and industries may continue to support fossil fuel industries due to the significant investments made in the past, even though transitioning to renewable energy sources would be more beneficial in the long run
<b>Groupthink</b>	People in a group striving for consensus, sometimes at the cost of making irrational decisions	Conforming to the opinions of one's social circle or political group, even if those opinions contradict scientific evidence.
<b>Optimism bias</b>	The belief that one is less likely to experience negative events than others	People may underestimate the impacts of climate change on their own lives, believing that they will not be personally affected by extreme weather events, rising sea levels, or other consequences



Cognitive biases	Description	Effect on climate action
<b>In-group bias</b>	Favoring one's own group over others	Individuals may be more inclined to accept information from sources they identify with, such as political or social groups, rather than objectively evaluating evidence from multiple sources
<b>Status Quo bias</b>	Preference for maintaining the current state of affairs, even when presented with evidence that change may be necessary	People may resist policies aimed at reducing greenhouse gas emissions because they prefer the familiarity and perceived stability of the current situation
<b>Loss aversion</b>	Tendency to prefer avoiding losses over acquiring gains	People may be more focused on the short-term economic costs of transitioning to renewable energy or implementing climate policies, rather than considering the long-term benefits of mitigating climate change and its potentially disastrous consequences
<b>Fundamental Attribution Error</b>	Tendency to overemphasize personal factors and underestimate situational factors when explaining someone's behavior	People might blame individuals for not taking enough action to combat climate change, while overlooking systemic factors that contribute to the problem, such as government policies or corporate practices

The human brain is predisposed to errors such as discounting distant or future events, often hindering our ability to take meaningful action on long-term threats. But our brain is not a deterministic system – it has general tendencies, but is also influenced by individual differences, as well as being responsive to new experiences and learning.<sup>135</sup> But to support our natural ability to learn new information and update our cognitive structures, climate communication needs to step up to the challenge.

Research published in Nature Communications in 2022 reveals a critical misunderstanding about public perception on climate change: While 66 to 80% of Americans support climate change policies, they inaccurately believe that only 37 to 43% of others do.<sup>146</sup> Despite supporters of climate change policies outnumbering opponents by two to one, many Americans hold the opposite perception. This false social reality suppresses open discussions about climate change and hinders the drive and political pres-

## 4.RE:WIRE

sure necessary for implementing effective climate policies. According to climate communications expert Susan Joy Hassol, a crucial step towards rectifying this misconception is to engage in more climate-related conversations amongst family, friends, coworkers, and leaders in both the public and private sectors, as each individual can be part of the solution through their influence.<sup>45</sup>

Effective communication is more than just broadcasting messages – it's about forging genuine connections with target audiences, and understanding their deeply rooted beliefs and identities. Research indicates that people are most receptive to information that aligns with and affirms their existing values, often dismissing or rejecting content that poses a challenge to their views. To bring about a meaningful shift in behavior or beliefs, communication strategies must be framed to resonate with the values of the intended audience.<sup>147</sup>

Take, for example, the effort to encourage bodybuilders to reduce meat consumption: an exclusively environmental appeal might fall flat due to the prevailing association between meat and performance in this community. However, spotlighting stories of top-tier vegan athletes who have achieved great strength can make all the difference – as demonstrated by the success of *The Game Changers* documentary. This approach doesn't confront existing beliefs of a community, but instead showcases a path that

## 4.1 THE PSYCHOLOGY OF CLIMATE CHANGE

aligns with existing goals and values. To craft impactful campaigns, it's vital to pinpoint influential groups within the target audience, understand their core values, and design messages that don't just provide information but also offer real value – paving the way for deeper engagement and effective outcomes.<sup>147</sup>

Some experts argue that research efforts should focus more on effective engagement to enable rapid wide-scale climate mitigation, rather than understanding the structure of climate change beliefs.<sup>148</sup> There is a widespread belief that only those in power can drive change, which often hampers global efforts to address climate change. To achieve the necessary level of transition, it is crucial to accelerate action across the world and involve all layers of society. Democratic governments are unlikely to implement transformative changes – which may come with short-term costs – without the support of their citizens.<sup>149</sup> Widespread lifestyle adjustments in areas such as diet, personal travel, and home heating can also contribute to reaching the ambitious 1.5°C target. Gaining public buy-in is vital to preventing resistance and ensuring the success of policy measures.



**Countries that are the most likely to say they are either “very worried” or “some-what worried” about climate change**



**MEXICO**  
**95%**



**PORTUGAL**  
**95%**



**CHILE**  
**88%**

**Countries that are the least likely to say they are either “very worried” or “some-what worried” about climate change**



**AUSTRALIA**  
**65%**



**PORTUGAL**  
**65%**

**Countries with people that are most likely to think that the government is most responsible for reducing the pollution that causes climate change.**



**ROMANIA**  
**50%**



**UZBEKISTAN**  
**50%**



**LEBANON**  
**50%**

**Countries with the respondents that are most likely to think that individual people are most responsible**



**EL SAVADOR**  
**52%**



**ZAMBIA**  
**49%**



**PANAMA**  
**49%**

**Countries with the respondents that are most likely to say that businesses are most responsible.**



**GERMANY**  
**43%**



**MEXICO**  
**43%**

Figure 47: Perception of countries regarding the role of governments and individuals in tackling climate change. Source: Yale Program on Climate Change Communication.

Making these shifts is easier said than done. Meeting our ambitious climate targets depends on considerable social and behavioral change – but many of the necessary behaviors are currently too expensive, too inconvenient, unappealing, or simply not compatible with our habits and social norms.<sup>95</sup> In the UK, for example, research by GoodLife has found that despite widespread climate change concern

only a small proportion of the public make individual changes necessary to mitigate climate change<sup>150</sup> – but 9 out of 10 actually want to make sustainable choices in their lives. But for the majority of the population, this would involve a lot of personal effort and compromise due to our current economic, infrastructural, societal and media environments.<sup>95</sup>

## WHAT IS BEHAVIORAL SCIENCE?

BY SWETA CHAKRABORTY, PHD

RISK AND BEHAVIORAL SCIENTIST AND CEO OF WE DON'T HAVE TIME

Behavioral science is the cross-disciplinary science of understanding the causes of individual, group and organizational behavior across different levels. Behavioral Science encompasses the social sciences, and brings together insights and methods from a variety of fields and disciplines like behavioral economics, organizational behavior, neuroscience, and others. Under the umbrella of Behavioral Science, these disciplines, which separately do not provide a complete picture of human behavior, offer a comprehensive understanding as to why humans behave the way they do, and how these behaviors are linked to perceptions as opposed to actual statistics and data. This field of study provides decades of robust evidence that it is our perceptions that drive our behaviors, which ultimately explains why climate change impacts are so easily overlooked.

Since the dawn of our species, our brains have been designed to react in certain ways to risks around us, particularly to overreact to those that are novel, unfamiliar, or have the potential for catastrophic consequences. It's worked out well for us for the most part. For example, our ancestors would see a poisonous snake and immediately jumpstart the response to react and hopefully run away. There were cues in the environment that their brains would rapidly scan and process to assess the risk; e.g., the color of the snake, its position and stance, the lack of other animals around. Most of this processing and subsequent decision-making was subliminal and automated.

Nobel laureate Daniel Kahneman referred to this phenomenon as “System 1” processing. We are running simple cognitive risk analyses, which result in low perceptions of risk and leave us unprepared for what is to come. We are being influenced by cognitive biases (e.g, sea level rise as slow-moving) in a way that is harmful to our futures, and we must apply the science of communication to correct erroneous perceptions to align with reality.

This requires taking the time to map out existing risk perceptions across thoughtfully segmented audiences prior to communicating. This allows science communicators to understand what knowledge gaps, erroneous beliefs, misconceptions, or conflicting values exist to carefully craft effective and impactful messages. It will also help identify trusted spokespeople for science. Research has shown that communicators who are perceived to share values with their audience are more effective at correcting inaccurate perceptions of risk.

According to climate scientists from the International Energy Agency, lifestyle and behavioral changes could make significant contributions to reduce emissions by 2050. However, a large number of individuals are still unwilling to make enough changes to reach the target of Net Zero carbon emissions by 2050. So far, governments and businesses have tended to work on technologies such as electric vehicles and small sustainable product swaps to help individuals make greener lifestyle choices.<sup>151</sup>

While individual behaviors play a critical role in reducing emissions, it can be difficult for individuals to fully understand the complexity of how their daily actions link to corresponding carbon emissions. Despite a wealth of information available to help consumers make environmentally conscious decisions, many people lack the time and resources to implement them. “Nudge” approaches can be an effective solution in some contexts, as they allow for positive and

gentle persuasion to encourage green behavior,<sup>152</sup> but it is crucial to engage people consciously with climate issues to avoid boomerang effects and behavioral spillover – using sustainable behaviors as justification to engage in other high-carbon behaviors. Action at structural levels will therefore be crucial – the broader systems which shape our choices need to facilitate sustainability, rather than hinder it.<sup>135</sup>



## USING CHOICE ARCHITECTURE TO MOTIVATE SUSTAINABLE BEHAVIOR

The UK government's "Nudge Unit," officially known as the [Behavioural Insights Team](#), is a social purpose organization that applies behavioral science to inform policy and improve public services. Established in 2010, it uses insights from psychology and behavioral economics to subtly influence people's behaviors, aiming to "nudge" citizens towards making better choices for themselves and society. It has been successful on a range of issues, from public health to education and energy conservation.<sup>153</sup>

### Research by the Behavioural Insights Team suggests that individuals make choices on three levels:

---



Individual preferences, knowledge, values and biases;



within choice environments that are determined by pricing, convenience, salience and norms;



within larger systems of commercial incentives, regulation, investment, infrastructure and institutional leadership.

Figure 50: Levels of decisions made by individuals, according to the Behavioural Insights Team.

Amplifying the issue are growing global economic and sociopolitical uncertainties, which exacerbate the struggle for individuals to live more sustainably. Data from ten countries published by Accenture Song shows that a slight majority (53%) of people in ten countries are striving to maintain sustainability principles despite current hardships, though nearly half (47%) have lessened their focus on sustainability due to economic pressures like inflation and rising costs. Consequently, sustainability is not a priority in most purchasing decisions – with price and quality taking precedence for over 71% of consumers.<sup>154</sup>



## Growing global economic and socio-political

Uncertainties exacerbate the struggle for individuals to live more sustainably. Data from ten countries published by Accenture Song shows that a slight majority **(53%)** of **people in ten countries** are striving to maintain sustainability principles despite current hardships, though **nearly half (47%)** have lessened their focus on sustainability due to economic pressures like inflation and rising costs.

**Consequently, sustainability** is not a priority in most purchasing decisions – with price and quality taking precedence for over **71% of consumers.**

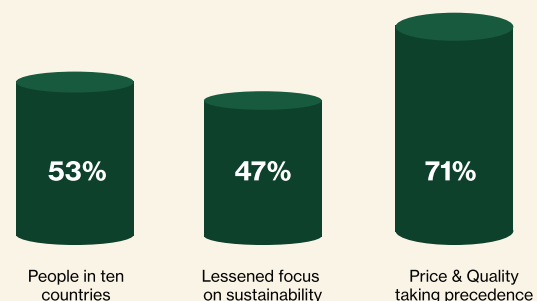


Figure 51: Current status on sustainability priorities in countries.  
Source: Accenture Song, *Our Human moment*.

Individual challenges must be contextualized within broader societal patterns. While individual factors influence attitudes to climate change, individuals are also embedded in social, economic and geographical contexts that shape said attitudes as well as policy preferences. For example, research found that the financial crisis of 2008 led to a significant priority shift away from environmental and towards economic policies, a trend which took about ten years to recover. This prioritization of immediate, short term issues poses a barrier to action on climate and environmental problems, which tend to occur over relatively long time spans.<sup>155</sup>

The same study found that environmental concern tends to be higher in countries and regions in Europe with higher income levels, lower inequality and cleaner industry (with less dependence on fossil fuels). However, GDP does not further contribute to environmental

concern beyond €40,000 per capita, indicating a value shift towards less immediate issues once basic needs are socially guaranteed and a relatively high standard of living is reached. Regions with younger and better educated populations (indicating better science literacy and more socially-oriented social norms) also exhibited higher levels of environmental concern.<sup>155</sup>

Paradoxically, personal carbon emissions are on the rise – even though sustainable practices, such as buying second-hand or repaired products or reducing overall purchases, can offer financial relief. Consumption is not just a matter of economics but also embodies a cultural dimension shaped by our values, beliefs, attitudes, identities, and aspirations. To encourage broader adoption of sustainable behaviors, we must not only make sustainability affordable and straightforward, but also address these complex cultural dynamics.<sup>154</sup>

## WHAT HAS BEEN SHOWN TO WORK FOR DIFFICULT BEHAVIOR CHANGE?

BY ANN-CHRISTINE DUHAIME

NEUROSURGEON AND AUTHOR, HARVARD MEDICAL SCHOOL

Building on decades of neuroscience research, strategies relevant to challenging behavior change have arisen in contexts such as treatment of addiction and large-scale societal public health interventions. Successful change typically follows several general principles, including the following:



“Positive” works better than “negative”; praising or otherwise rewarding the new, desired behavior usually changes it faster than punishing lapses.



New information that provides the rationale for the behavior change is most readily accepted when it comes from someone known and respected by the recipient rather than from a stranger.



Public affirmation of a commitment to change increases the chance that the change will be maintained.



Substituting new behaviors that meet the needs of the recipient/community, come from respected authority figures, and are sensitive to the cultural context increases behavior change success.



Strong inclusion of social rewards to substitute for the rewards being given up lies at the core of many successful behavior change strategies.

Figure 48: Principles for successful behavioral changes.

Our understanding of climate change is largely driven by our values and worldviews – a lot more so than education and knowledge. People who do not care about climate change do not necessarily do so due to a lack of morals - they must just be different from ours. This is why it's important to stress climate change poses to things we universally and personally value - the health of our families, the economic strength of our communities, and the stability of our world.<sup>156</sup>

Effective framing is paramount. Certain frames can positively affect individuals' engagement

with climate change by altering perceived norms and self-efficacy. Effective frames include those that emphasize the environmental, economic, and moral dimensions of climate change.<sup>157</sup> Climate messages resonate more effectively when they are tailored to people's geographical context (for example, telling farmers that climate impacts will limit their availability to grow food). Emphasizing the threat climate change poses to people's way of life has been shown to be effective with climate skeptics, and makes it more likely for people to shift their opinions on climate change, compared to frames focusing on global impacts.



## MAKING CLIMATE CHANGE PERSONAL AND LOCAL

BY WILL HACKMAN

CONSERVATION AND CLIMATE ADVOCACY EXPERT

A 2021 Pew Research Center poll showed only 57% of American adults believed climate change was affecting their local communities at a “great deal” or at “some” level. When broken down by political parties, the divide grew – effectively, half the country doesn’t see what climate change personally means to them in their lives and communities.<sup>158</sup>

The gap in “issue identification”, or connecting more people personally to an issue like climate change, is also global, as highlighted by a recent International Monetary Fund (IMF) report. The IMF surveyed 30,000 people across 28 countries and found more public support is needed to pass climate-friendly policies. The majority of respondents said they cared about climate change, but this sentiment alone wasn’t enough to lead to new climate policies in those countries.<sup>159</sup>

These polls come despite countless examples of how climate change affects human populations. There may be a climate crisis in the scientific sense – but for all practical applications of the solutions we need to pursue, we are in a humanitarian crisis. Every piece of the Paris Agreement is grounded in making our human society more resilient, more sustainable, and profitable. Clean air, clean water, a clean energy revolution that creates millions of jobs and dramatically improves our standard of living. The agreement’s most ambitious goal of limiting warming to no more than 1.5°C by the year 2100 (over pre-industrial levels) was created with the citizens of small island nations in mind, who will literally go underwater if that temperature threshold is exceeded.

Building direct, personal connections is a foundational step to overcome a knowledge gap on any issue. It helps bring something that may still seem so large or abstract to so many into focus. These connections also build political support and are the missing links to passing more effective climate policies.

Research has found that human information processing and behavior are significantly guided by emotions, challenging the established belief of a divide between rational thought and impulsive emotions.<sup>160</sup> Emotions are deeply interwoven with cognitive and motivational processes, and guide our risk perception and responses regarding climate change, as well as mitigation and adaptation behavior, policy support, and technology acceptance. Re-

cent studies have shown that negative emotions around climate change, alongside factors like perceived self-efficacy and outcome efficacy, have been identified as key predictors of individual willingness to take up pro-environmental behaviors.<sup>161</sup>

Public support for climate policies has also been shown to be strongly influenced by emotions such as worry, interest, and hope.<sup>162</sup>

Interestingly, inducing both positive & negative emotions can promote sustainable behavior under certain conditions,<sup>160</sup> implying that communication strategies should both spark worry about climate change, as well as hope about the possibility of building a better future. While guilt & shame based communication approaches are used often, but trigger a defense mechanism in people which leads to justification of unsustainable behaviors rather than behavior change.<sup>32</sup>

When targeting emotions to achieve engagement with climate change and pro-environmental behavior, it's important to understand the underlying mechanisms of emotions to optimize

the impact of our communication. Emotions influence decisions and actions primarily through affecting cognitions (thoughts or mental processes) and judgments like beliefs and risk perceptions around climate change, as well as by sparking motivational tendencies, which inspire and guide behaviors.<sup>160</sup> To maximize the impact of emotional climate messages, it's crucial to carefully select target emotions that align with the desired behavior change. While negative emotional messages have been effective in spurring intentions to act,<sup>163</sup> they are often evaluated negatively<sup>164</sup> and people generally prefer climate messages without negative emotional content.<sup>165</sup>

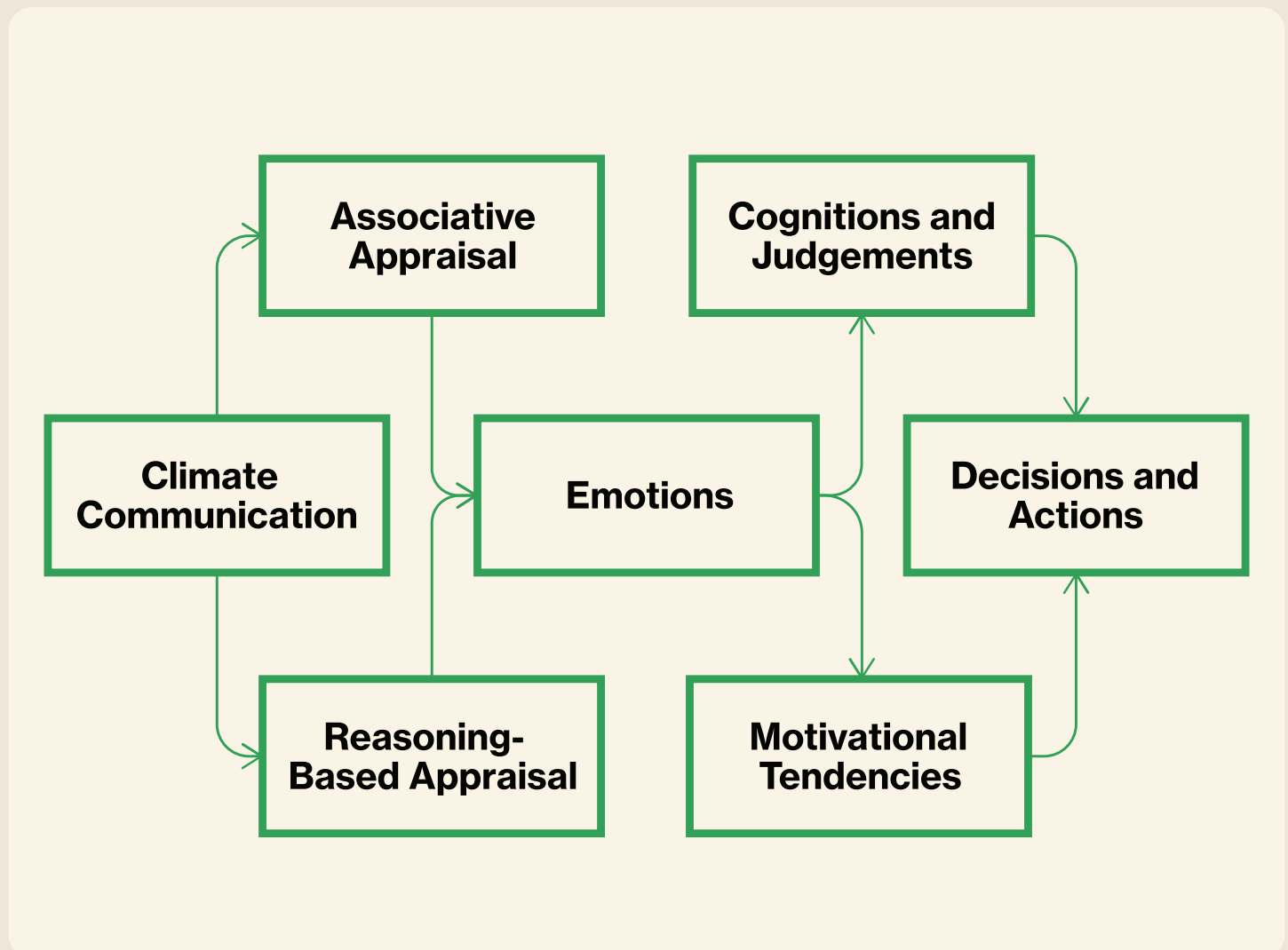


Figure 49: Interplay between effective climate communication, emotions, and decisions/actions.  
Source: Brosch, 2021.

## 4.RE:WIRE

One study found that people generally prefer emotion-free climate messages, though certain demographics have been found to favor emotional messages.<sup>166</sup> Gender roles have also been found to impact preferences for emotional expression, with men favoring leadership-focused, business-related climate arguments, while women are more receptive to arguments framed around caring for others.<sup>167</sup> Research indicates that women are more likely to prefer emotional messages, whereas men are more likely to resonate with non-emotional messages rather than those using fear and sadness. Political orientation also plays a role – Democrats are more likely to resonate with negative emotional messages and actively support climate policies than Independents or Republicans.<sup>165</sup>

Humans are inherently social creatures. Our opinions and behaviors are heavily influenced by the people around us our friends, family, colleagues, and communities. Our understanding of the climate and nature crises is formed through conversation we have in everyday life if our social circles discuss and prioritize it, we are more likely to view it as important. Conversely, if our social environment is dismissive of climate issues, we may adopt a similar attitude.<sup>141</sup>

Peer-to-peer conversations in particular have been identified as a vehicle for social influence. Especially when we perceive a sense of psychological safety towards our conversation partner, we are much more likely to change our behavior following a chat - even if we were initially unsupportive towards their stance.<sup>168</sup>

## 4.1 THE PSYCHOLOGY OF CLIMATE CHANGE

The way we talk about climate change within our close-knit groups can greatly influence how the group – our sphere of influence – perceives the issues and how motivated they are to act upon it.

Per Espen Stoknes emphasizes the need for positive, solutions-oriented discussions about climate change – instead of conversations dominated by fear, hopelessness or denial, he advocates for discussions that focus on potential solutions, shared responsibilities, and the possibilities for positive change. Such conversations are more likely to inspire engagement rather than feelings of overwhelm.<sup>141</sup> Constructive conversations can lead to alignment on the importance of addressing climate change, understanding about the role people can play, and mutual motivation to do so. A collective sense of purpose is essential for mobilizing action – people are much more likely to do something if they feel part of a larger, shared endeavor, and when they feel supported and understood by their peers.

Climate change communication literature emphasizes the importance of tailoring messages to target audiences - which includes highlighting the local significance of climate change and its impacts on people's physical and cultural settings – such as their homes, workplaces, and neighborhoods<sup>169</sup> ([see 4.3](#)).



# MAKING PRO-ENVIRONMENTAL BEHAVIOR THE NORM

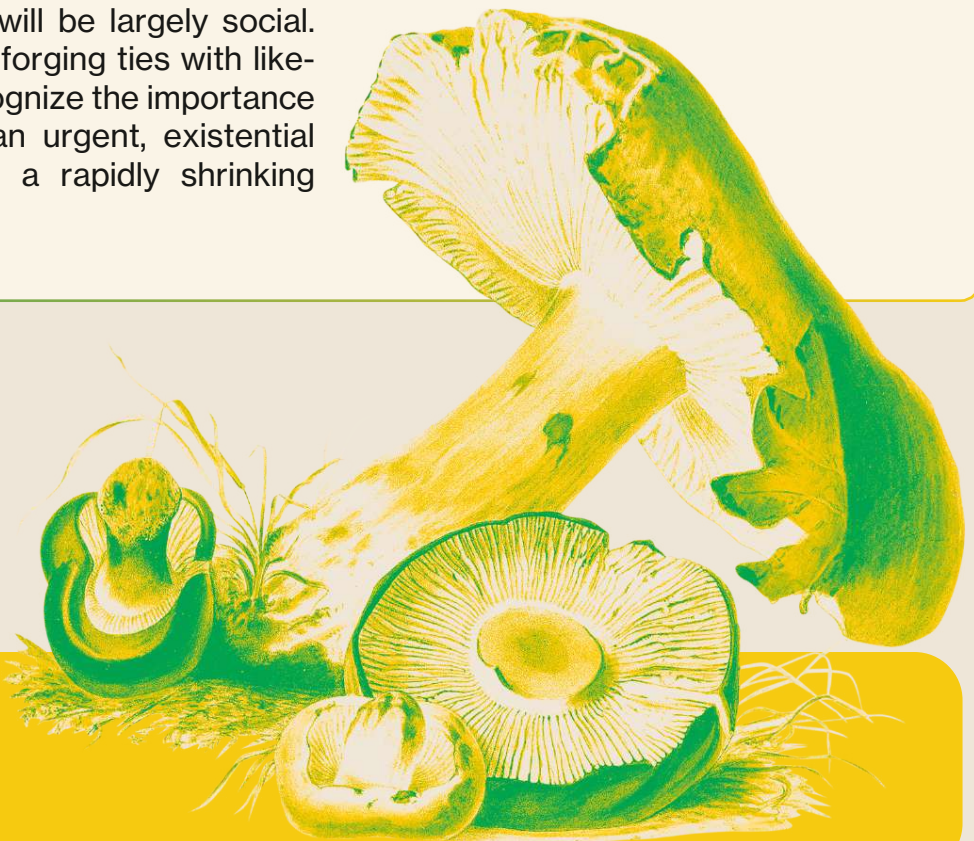
BY ANN-CHRISTINE DUHAIME

NEUROSURGEON AND AUTHOR, HARVARD MEDICAL SCHOOL

For most people, choices that reduce greenhouse gas emissions simply may not “feel” as rewarding and satisfying as most decisions people are used to making. Information about climate change usually comes from strangers, “experts” in areas of science with which most people are unfamiliar and can’t judge independently using their own experience or cultural learning. The consequences of climate change are easily attributed to other causes. Whose responsibility it is to “fix” climate change is murky to most people.

A pro-environmental decision rarely provides the immediate reward that follows most standard decisions and helps convince you it was the right choice – a better bottom line, praise from colleagues, a bonus, or some other tangible effect. Instead, for many decisions that mitigate an enormous and globally distributed problem like climate change, the rewards almost certainly will occur far away, to someone else, and will feel insignificant – and likely will never be perceived directly. The consequences won’t be felt as directly as, say, those that benefit many charity and humanitarian causes that have more direct and clearly identified recipients. It is unlikely that anyone will thank you directly for making a change in their life.

Thus, the rewards you get will be largely social. These can be reinforced by forging ties with like-minded people who also recognize the importance of climate stabilization as an urgent, existential challenge that comes with a rapidly shrinking window of opportunity.



Social rewards are some of the most powerful motivating forces – if our community approves of sustainable behaviors, they are more likely to become habits. In Europe, the rise of low-carbon community initiatives are becoming an important part in accelerating behavior change and the energy transition,<sup>170</sup> with empty UK shops being transformed into community hubs and climate emergency centers.<sup>171</sup> These spaces provide a way for people to socialize and connect with their communities, while learning new skills that help them live more sustainably.

Aside from psychological barriers, critics of existing behavior change strategies have argued that a wrong-headed understanding of “freedom” in western countries is part of the reason for slow progress on behavior change – a prominent recent example being conspiracy theories targeting 15-minute neighborhoods. To overcome this barrier, it is recommended that policymakers should make sustainable options the easiest and cheapest option.<sup>151</sup>

Addressing climate change requires a multifaceted approach that encompasses not only scientific and technological advancements but also a deep understanding of human behavior and psychology. The climate crisis, and our inherent struggle to fully grasp its meaning

within our own lives, underscores the necessity of reimagining our visions of the future. By utilizing effective communication strategies, fostering supportive social environments, and implementing policies that make sustainable choices accessible and appealing, we can bridge the gap between individual actions and global climate goals. But communication is not only key in building motivation – the way we frame the crisis also has profound implications for our mental wellbeing and therefore capacity to act, as we explore in the next chapter.



## 4.2 CLIMATE AND THE MENTAL HEALTH CRISIS

Nearly one in five US adults struggles with mental illness, and an increasing amount of research indicates that climate change can exacerbate these mental health challenges.<sup>172</sup> The latest IPCC reports highlight the profound mental repercussions of climate events – with 20-30% of those experiencing hurricanes facing depression or PTSD in the subsequent months, with similar rates in flood survivors.<sup>172</sup> Both sudden extreme weather events (such as hurricanes or wildfires) and long-term shifts (rising sea levels or increased temperatures) contribute to mental health risks – ranging

from mild stress symptoms to clinical disorders like anxiety or depression. These risks can be direct, stemming from personal trauma experienced during events like hurricanes; indirect, related to climate-induced threats to livelihoods or food security; or vicarious, originating from the distress of witnessing or learning about the toll climate impacts take on others. Public sentiment data shows a rise in climate anxiety, with half of US adults reporting mental health impacts related to climate change and a significant percentage expressing concern for future generations.<sup>172</sup>



Figure 60: Connection between climate hazards and mental health risks. Source: Climate Central.

## 4.RE:WIRE

The American Psychological Association (APA) recommends promoting mental health in the face of climate change by focusing on both individual and community resilience. At the individual level, strategies include strengthening social networks, fostering optimism and hope, and enhancing personal preparedness. For community resilience, the APA suggests addressing socioeconomic disparities, preserving cultural connections, and broadening disaster response plans with community input.<sup>173</sup>

Approximately half of adults agree that climate change is already affecting Americans' mental health (48%) and are anxious about its impact on future generations (51%).

Americans' mental health **48%**

Anxious about its impact on future generations **51%**

Figure 61: Share of adult Americans who feel their mental health is being affected by climate change and who are anxious about its impact on future generations. Source: American Psychiatric Association

## 4.2 CLIMATE AND THE MENTAL HEALTH CRISIS

The climate crisis is not only one of the biggest public health challenges of our time, but it also poses a significant threat to the mental health of young people. Negative depictions of the future influence the likelihood of active engagement, and can have serious consequences for mental health, especially that of young people.

 **70%**  
Americans

report feeling at least  
“somewhat worried” about  
global warming, with 35%  
feeling “very worried.”

Figure 59: Share of Americans who reported feeling somewhat or very worried about climate change. Source: Climate Central.



Climate anxiety has been described as ‘biggest pop-culture trend of 2019.’<sup>174</sup> A study led by the University of Bath surveyed 10,000 young people in ten countries, and revealed that 75% of young people think the future is frightening, 59% are very or extremely worried about clim-

ate change, and 45% feel that their feelings about climate change negatively affects their daily life and functioning.<sup>175</sup> Most notably, climate anxiety and distress were correlated with perceived inadequate government response and associated feelings of betrayal.

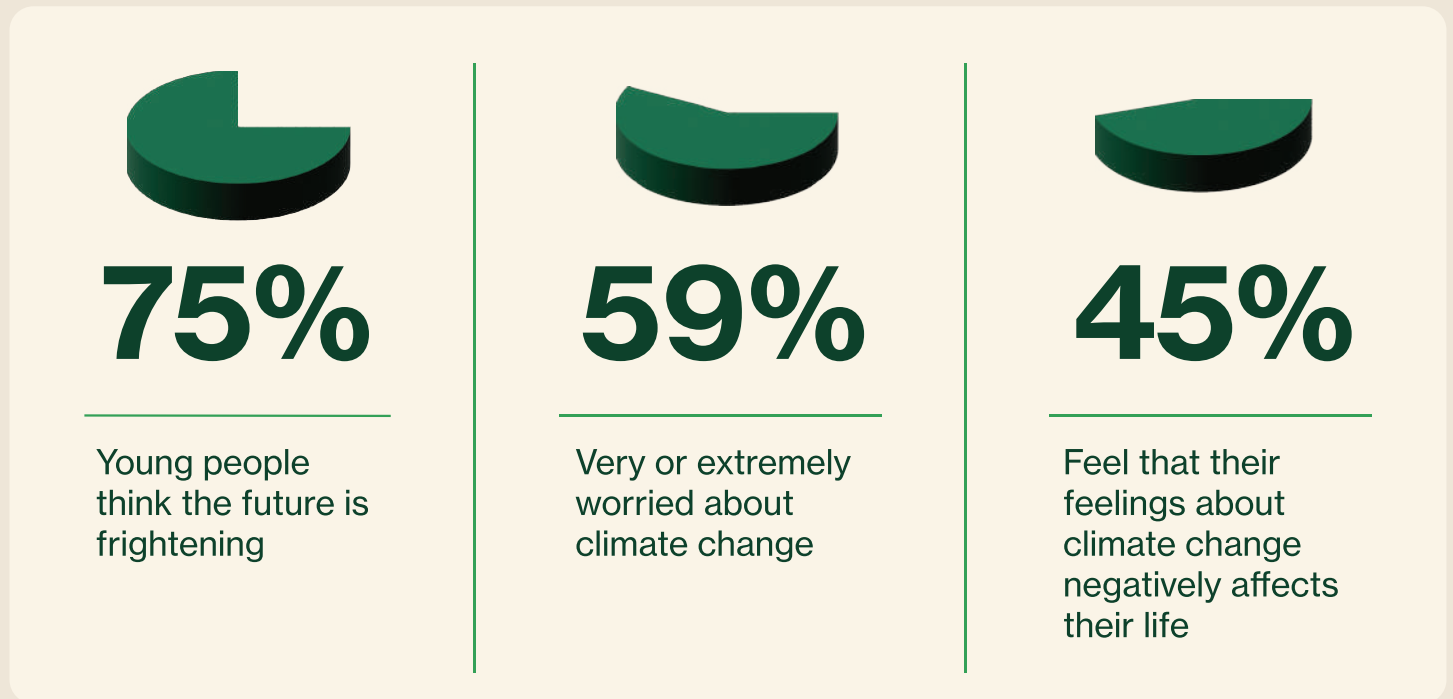


Figure 57: Beliefs of young people towards climate change and its impacts on our daily lives. Source: The Lancet Planetary Health.

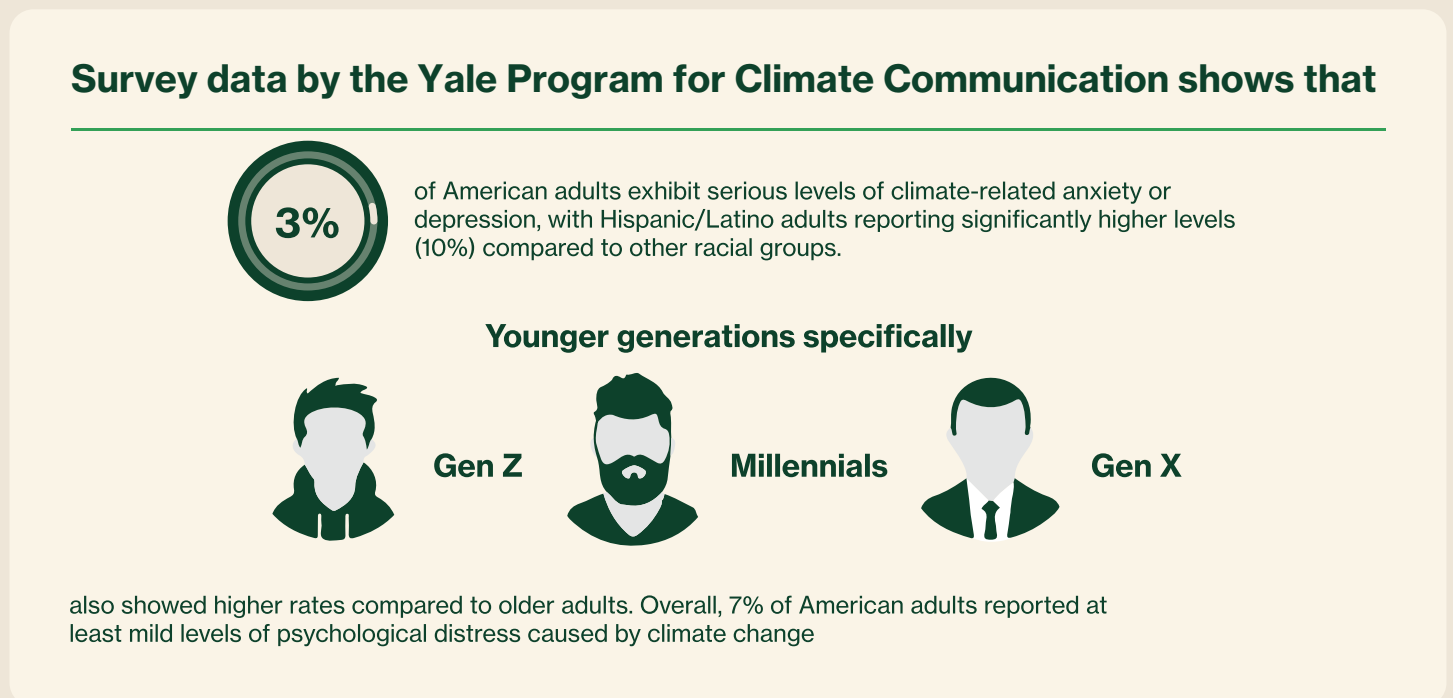



Figure 58: Anxiety among American adults, according to a survey by the Yale Program for Climate Communication.



A participant-led paper by Climate Cares found that climate-related distress often derives from the acute knowledge that the crisis is not being taken seriously enough, as well as a failure to consider young people's feelings and hope in policymaking and research.<sup>176</sup> Young people are often only involved in climate discussions tokenistically, and unfairly portrayed as the world's ultimate saviors while lacking power to affect change at structural levels. The authors list validating responses, support from mental health professionals, and genuine commitment to climate action as helpful when coping with these feelings, as well as intergenerational collaboration on an institutional level.

**Young people  
feel that humanity  
is doomed**

**56%**



*Figure 56: Percentage of young people who demonstrated a doomism feeling.*

*Source: The Lancet Planetary Health.*

## TACKLING THE CLIMATE MENTAL HEALTH CHALLENGE

BY OMNIA EL OMRANI

ENVIRONMENTAL HEALTH RESEARCHER AT IMPERIAL COLLEGE LONDON AND COP27 YOUTH ENVOY

I'm a climate change and health policy fellow at Climate Cares, a project steered by Imperial College London working across research and policy around the nexus between climate change, and mental health. One of our biggest initiatives is the Connecting Climate Minds Project, which is building seven regional communities of practice, organizing virtual dialogues and convening organizations to create regional research agendas linking climate change and mental health, both directly or indirectly. We're also looking at solutions and cost-effective interventions to respond to the challenges and the implications of climate change on mental health, centering the needs and the perspectives of people's lived experience and youth.

We want to understand the needs and priorities for each region. We're also creating an online hub that will create a powerful interconnected community of practice, linking climate and mental health solutions. We want to engage people meaningfully, honor their views and insights, center their priorities and perspectives at the heart of this research and action agenda. We are funded by the Wellcome Trust and have partners around the world, including in the Philippines, the Caribbean, and the US.

The strongest predictor of climate anxiety is climate information-seeking behavior. As such, climate anxiety should not be seen as a mental illness, but a natural and non-pathological response to the planetary-scale crisis we find ourselves in. And it can even be a motivating force<sup>177</sup> to take action: a study from 2022 found that climate anxiety is a predictor of pro-environmental behavior and even climate activism, although how an individual deals with their feelings is largely dependent on their country of residence - with activism more common in democratic countries like Finland, and sustainable lifestyle choices more widespread in countries with higher GDPs.<sup>178</sup>

However, without adequate support, climate anxiety can lead to mental health issues. Research suggests that most people do not receive adequate support either from the people around them nor mental health professionals.<sup>176</sup> Taking collective action, such as engaging with an activist group, has been shown to act as a buffer to climate-related mental health issues. Unfortunately, individual sustainable lifestyle choices often do not provide the same mental health benefits, as people tend to feel that their actions are insignificant compared to the enormity of the challenge.<sup>179</sup>

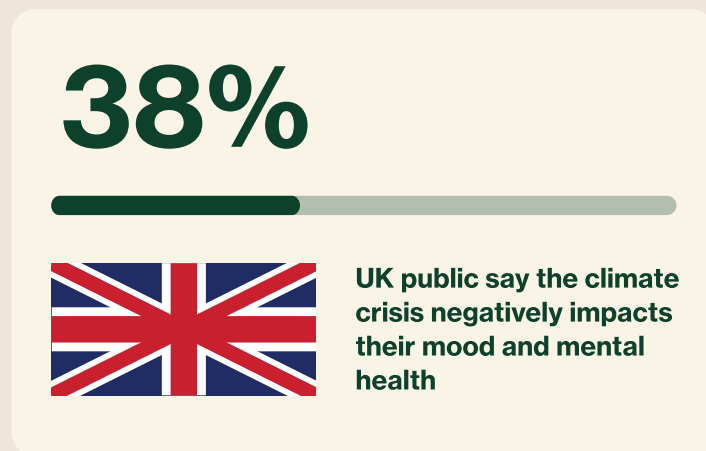
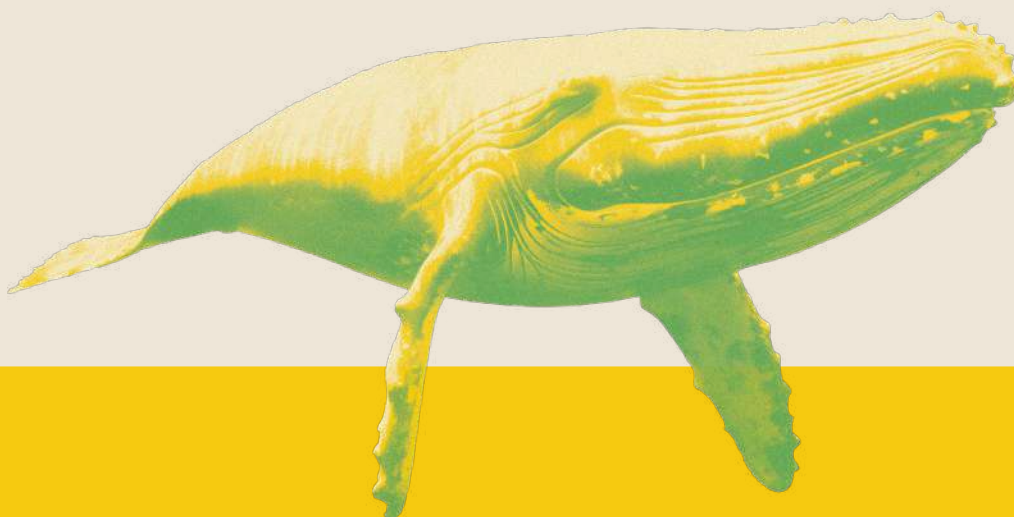


Figure 55: Percentage of the UK's population who believes that climate change will negatively impact their mood and mental health.

Source: UK Office for National Statistics.

The Age of Transformation network argues that amidst the external challenges of climate change and various crises in energy, economy, and food, our inner crisis of meaning and purpose often remains overlooked. The Mental Health State of the World report reveals a global trend of younger generations experiencing declining mental health<sup>180</sup> – this crisis is intertwined with the broader global issues we face. Confronting dysfunctional prevailing societal norms of material accumulation is essential – instead embracing an emerging paradigm that values interconnectedness, love, compassion, and justice. Disrupting old cultural paradigms and fostering new ones in our lives and communities holds potential to drive a more sustainable future, both in terms of wellbeing and the planet.<sup>181</sup>



### 4.3 HUMAN PSYCHOLOGY FOR CATALYZING ACTION

## CREATIVITY AND SUSTAINABILITY ARE KEY FOR BEHAVIORAL CHANGE

BY KAREN LAND SHORT

GLOBAL EXECUTIVE CREATIVE DIRECTOR AT ACCENTURE SONG

“Solving climate change starts and ends with behavior change. The UK Climate Change Committee says that 59% of the Net Zero transition is dependent on behavior change. Link Creativity brings the magic needed to make behavior change happen: Simplification. Captivation. Participation. And, for sustainability, where the details and the science are everything, the scene is set for those that do creativity and sustainability expertise well to make an enormous difference.”

People are also influenced by what they perceive as social norms. By highlighting the actions of others who are taking steps to reduce their climate impacts, in particular influencers [\(see 8.3\)](#), we can encourage others to follow suit. Social norms can be established culturally, or through policies which promote pro-environmental behavior. Such policies should provide incentives and rewards for sustainable behaviors, such as tax credits or discounts for using public transport.



## HOW DOES CULTURAL CHANGE HAPPEN?

BY ANN-CHRISTINE DUHAIME

NEUROSURGEON AND AUTHOR, HARVARD MEDICAL SCHOOL

The climate challenge is superimposed on other shifts in how humans live compared to the circumstances under which our main tool – our brain – evolved its current design. We have a tremendous amount of built-in flexibility (also called plasticity) that has enabled us to expand and Science and technology advance exponentially, as discoveries beget new discoveries; this is the basis for our rapid inventiveness and industrialization. Plasticity allowed us to invent the industrial causes of climate change before we understood the consequences. It allowed for spectacularly rapid advances in engineering, biomedical research, and information technology.

Cultural change follows scientific and technological change, and as these have increased their pace of change, culture too has changed at an accelerating rate. Some authors have hypothesized that the pace of change may have reached the limit of human adaptability. This may be another reason we cling to familiarity, experience unease with rapid changes in what is “correct” behavior, and feel general anxiety and a sense of being “unmoored”.

Climate change is for some the proverbial last straw – even the very earth and planet have become unstable, and the rhythms of seasons and relatively predictable variations in flora and fauna can no longer be relied on to calm our sense of instability. Besides the understandable phenomena of climate anxiety and depression, another reaction such distress may engender is simple climate denial. Political polarization, informational segregation, and the powerful influence of vested economic interests enhance the challenges of effective individual and collective climate action.

In communication and social sciences, frames and deep frames are concepts that help understand how people interpret information and make sense of the world. A frame refers to the mental structure that shapes the way we see things – like a lens through which we interpret information, experiences, and decisions. For example, the climate crisis could be communicated through an economic frame (in terms of the potential for green jobs, or the economic impacts of climate change), health framings (discussing air pollution in terms of its impacts on respiratory health), or moral frames (in terms of our responsibility to future generations or all

forms of life).

Deep frames, on the other hand, go a step further. They are more profound, subconscious, and long-held beliefs that influence how we perceive the world. Deep frames shape our moral and value judgments and are often associated with our cultural, social, and personal identities. They are much harder to alter, as they form the core of our belief system. An example of a deep frame might be a worldview that values individualism and personal responsibility over collective action, which could shape one's perspective on issues like social welfare or climate change.<sup>182</sup>

By framing climate change as an urgent problem that requires immediate action, as well as an opportunity to create a better future rather than a sacrifice, we can motivate people to take personal action.<sup>153</sup> Successful communication approaches speak to people's values, frame sustainable behavior and activism as social norms, and highlight climate engagement as widespread and effective.<sup>183</sup>

---

“What are the implications for the way we view both ourselves and the way we live? In brief: in the coal energy culture — a culture of workers and production — you are your job. “I am what I make.” In an oil and gas energy culture — a culture of consumption — you are your possessions. “I am what I buy.” But in a renewable energy culture, you are what you conserve. “I am what I save and protect.” We aren't used to thinking like this, because we can't see where the money will come from. But in a culture of renewables, money will not be the only measure of wealth. Well-being will factor as an economic positive, too.”

- Margaret Atwood, poet and novelist, in *Medium*

Therefore, when trying to communicate or persuade, it's not enough to just present facts. We should consider the frames and deep frames through which the audience will interpret that information. A successful message or narrative is one that aligns with or subtly shifts these frames to create understanding or change.<sup>182</sup>

While information dissemination is not enough to foster meaningful climate engagement, providing people with accurate and accessible information about climate change and its impacts can help grow understanding of the issue and the actions we can all take to address it. Most people want to take action on climate change, but simply don't know where to start. Climate literacy can help dispel misinformation and close knowledge gaps that may be creating mental barriers to action: The UK's Behavioural Insights Team recommends providing people with simple and easy-to-use guidance in the form of information hubs on what they can do, and how to reduce their carbon footprint. But ultimately, the behavior change necessary to meet Net Zero will necessitate an enabling environment built by businesses, markets and institutions,<sup>101</sup> where low-carbon choices are the norm rather than the exception.

Climate communication expert Susan Joy Hassol stresses the importance of understanding that climate disruption isn't just an environmental issue, but a matter of universal concern affecting everyone's interests and values.<sup>45</sup> A 2021 Gallup survey found that only 41 percent of Americans identify as environmentalists, and due to political polarization, climate change discussions can be contentious. However, everyone's life is touched by the climate crisis — whether they are people of faith, fishing enthusiasts, skiers, or simply consumers of foods such as coffee, chocolate, corn, and wheat. The climate crisis is also affecting people with the increasing summer heat, wild-fire smoke, and other forms of extreme weather. Hassol advises using what people care about as a starting point for climate discussions, reinforcing that effective communication hinges on connecting over shared values, building trust, and finding common ground.<sup>45</sup>

## HOW TO MAKE CLIMATE AN ENGAGING TOPIC

BY MARCY FRANCK

SENIOR COMMUNICATIONS STRATEGIST AT HARVARD C-CHANGE

Reaching people on difficult topics with content they want to engage with is a heavy lift. In four years of publishing *The Climate Optimist*, we've learned that our winning recipe includes four ingredients:

- Make it personal. Writing in the first person and including anecdotes about how we're feeling, in addition to stories about climate progress, leads to more positive reader feedback and an uptick in subscribers.
- Use humor, because a spoonful of sugar helps the medicine go down. Research supports that humor helps people engage deeper in climate messaging, believe more strongly in climate science, and become more likely to engage in climate activism.
- Acknowledge the gravity of the moment: We make clear that climate optimism isn't about denying what we can see with our own eyes, or ignoring our grief for what we've lost. It's understanding that we know how to prevent things from getting worse and that we're making progress.
- Share tips for managing emotions and tools for changing mindsets: Our most successful issues in terms of new subscribers, feedback, and open rates focus on policy wins and fostering hope, cultivating optimism, overcoming climate guilt, and nurturing joy.

It's possible to engage individuals who resist acknowledging human-caused climate change by approaching the conversation through a "side door". Clean energy, widely liked for co-benefits such as cleaner air and water, energy security, cost reduction, and job creation, can serve as a common ground without addressing climate change directly. Studies have demonstrated that highlighting economic benefits can effectively motivate action on climate change across political groups, emphasizing the necessity of social support to combat climate disruption.<sup>45</sup>

Peer-to-peer dialogues have been proven to help eliminate misunderstanding about climate change and encourage the adoption of low-carbon lifestyles,<sup>184</sup> which can be achieved

organically through increasing climate literacy ([see 9.2](#)), trusted spokespeople ([see 8.3](#)), or approaches such as Narrative Workshops, which facilitate climate change conversations and are based on storytelling, which is a powerful way of engaging the public with climate issues ([see 10](#)).<sup>185</sup>

Place-based approaches make climate messages more relevant by connecting them to people's daily lives and lived experiences.<sup>186</sup> Since climate change is often not considered a day-to-day priority, communicators should address issues people already care about and that are immediate, tangible and local – from public transport, green spaces, to energy security, air pollution or flooding. There are a number of issues we can agree on without having to

address climate change directly – our focus should be on the fact that by tackling climate change, we would significantly improve some of society’s most pressing issues along with it<sup>32</sup> – and our messaging must underline how sustainable behaviors fit into this equation.<sup>187</sup>

**RECOMMENDATION:** As climate scientist Katharine Hayhoe stresses in her book *Saving Us*, going beyond talking about climate can sometimes be the key to capturing hard-to-reach audiences. For example, a farmer may care more about how rising temperatures might affect food production, while a community of faith may respond more positively to the notion of protecting God’s creation, rather than hard scientific facts. Focusing on co-benefits is another effective method to advocate for new policies. Being ‘green’ is strongly associated with being inconvenient or more expensive – in the UK, most people support Net Zero policies, but this support drops significantly once people learn about the cost associated with policies. Therefore, explaining the non-climate benefits of climate policies, such as reduced bills and improved health, will be crucial. We can achieve this by normalizing climate action, stressing its effectiveness and utilizing trusted messengers.



### Firstlight: Delivering impactful climate communication

1. **Be accessible, positive and contextual:** Don’t assume that your audience has a good understanding of climate issues. Use engaging spokespeople, stress the economic benefits of climate action, and avoid terminology that could be confusing or trigger negative emotions.
2. **Tailor your approach to different audiences:** Be clear about who is being targeted, and tailor your message accordingly.
3. **Highlight results, not just promises:** Rather than highlighting pledges, it is important to highlight meaningful progress towards targets in order to restore trust.
4. **Have difficult conversations:** Step outside echo chambers and engage with people whose views aren’t aligned with our own. Understand their motivations and thought processes to develop effective engagement strategies.
5. **Challenge established rules of engagement:** Climate experts often speak in terms of probabilities, while detractors speak with absolute conviction. Challenge media platform to move from confrontation to consensus, and deliver unbiased messaging on climate change.

The issues outlined in this section are compounded by the advertising industry's current approach, which paints a picture of a "good life" in terms of status and wealth.<sup>150</sup> Because climate change is often explained through an abstract scientific lens, most people can't visualize what a world with 1.5 degrees, 2 or even 4 degrees of warming would look like. Climate communication experts argue that the missing ingredient in this connection is emotions, which are important determinants in risk perception (see 4.1). Emotions are often ignored in both academia and policy as they are seen as "irrational", but they may just be holding the solution to the communication conundrum, as they influence our practical and moral decision making.<sup>188</sup>

### Accenture Song: Which values connect us to sustainability?<sup>108</sup>

- **Care:** Protecting the people, objects, and ways of life that matter
- **Empowerment:** Using our agency to create positive change and stand up for our values
- **Openness:** Exploring how things could be different in order to be content with ourselves
- **Self-fulfillment:** Striving to be our best selves, by pursuing physical, mental, and spiritual wellness
- **Connection:** Building a sense of closeness within communities, or to incentivize social comparison
- **Resourcefulness:** Building stability and getting the most value by maximizing resources



For those pushing for social change, it's essential to connect with people's emotions. Many groups try to get support by sharing sad stories, hoping others will also feel and care deeply. However, making people feel too sad or guilty might actually push them away instead. Research has shown that most people avoid information that makes them upset or guilty. On the other hand, positive feelings – like wonder or pride – can draw people in and make them more willing to engage, as they feel more conn-



cted to others and more open to new ideas. Another study found that people who expected to feel proud about doing something good were more likely to act than those who feared feeling guilty for not acting. When trying to motivate people to act, it's key to focus on positive emotions that align with the goal of our messaging.<sup>147</sup>

and even climate denial.<sup>189</sup> While fear-based approaches can be effective in attracting people's attention and creating initial engagement, they are thought to be ineffective in motivating sustained personal engagement and can have a negative impact on mental health.<sup>160</sup> Instead, communicators should strike a balance between conveying the urgency of the climate crisis

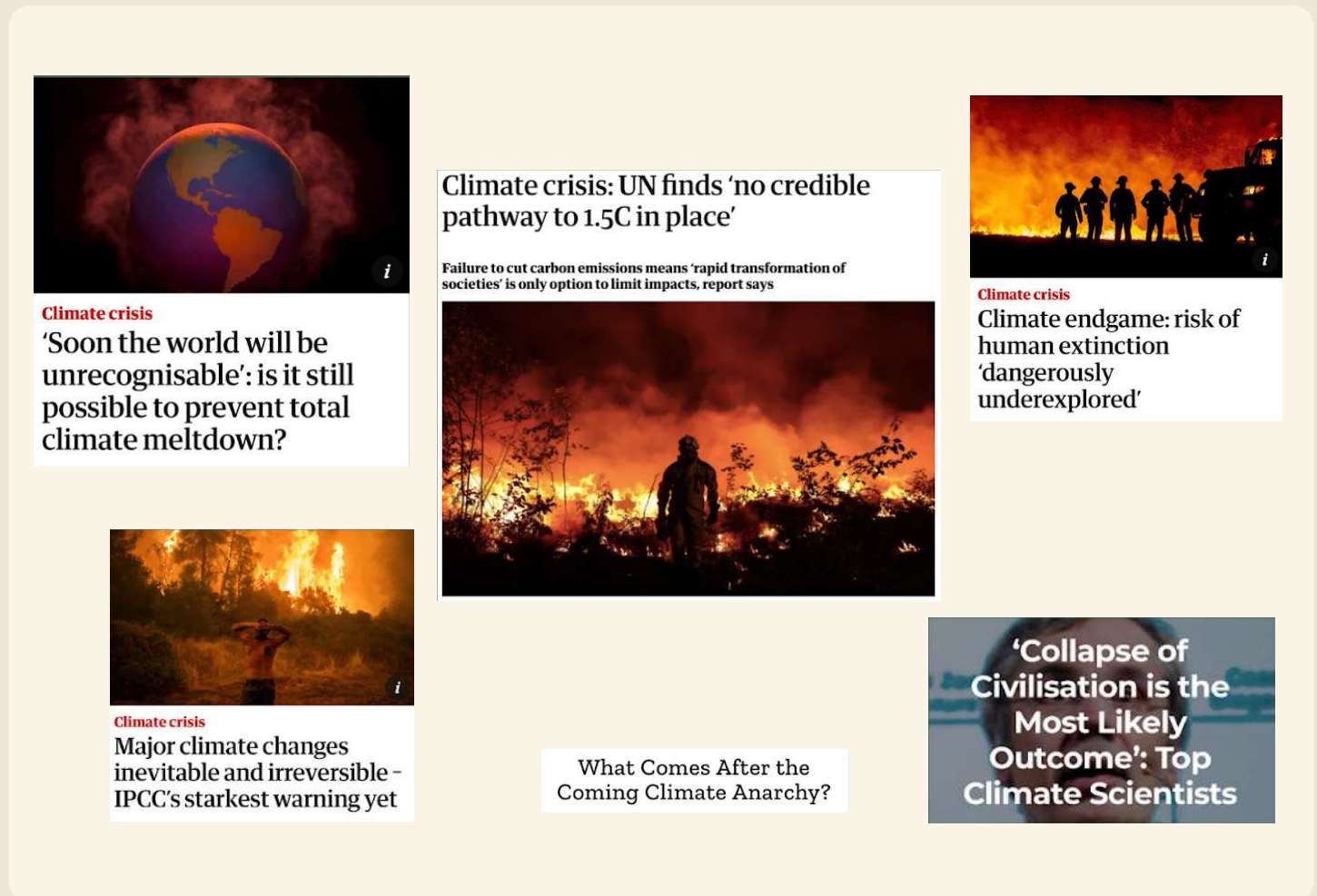


Figure 63: Climate change news that might transmit a message of fear.

The most utilized emotion in climate change communication to date has been fear (see 5.2) – but a number of academics argue that this approach may be counterproductive. The efficacy of fear appeals versus hopeful messages in climate change communication is a contentious topic, with some research suggesting that distressing information about climate change can lead to psychological dissonance

and fostering a sense of agency through highlighting solutions and ways individuals can take action beyond just behavior change. To prevent falling into either doom or complacency, communicators can use non-threatening imagery that relates to people's everyday emotions and concerns to reduce psychological distance and promote positive engagement with climate action.<sup>190</sup>

## MOVING BEYOND FEAR

BY ROSS FINDON

FOUNDER OF ROSS FINDON COMMUNICATIONS

The creative industries rely on attention. It is often the measure of our success, and we treat it like other industries treat resources like cotton or oil or wood, a thing to be harvested and turned into profit. And in that race for attention we have come to rely on narratives of anger, fear, and division. These are the emotions that generate the clicks on social media posts and the news article shares, but they are not the narratives that drive meaningful action.

In recent years we have seen increasing polarization and anxiety around climate change, and as communicators and creatives we must recognize our role in this. Science tells us that these states of mind paralyze rather than empower, leading us to retreat into our bubbles, the comfort of the familiar, or to avoid the issue altogether.

Now is the time to tell a new story; to create narratives built on realism, but that point to the solutions at hand and the opportunities ahead of us. It means moving forward from the indisputable ‘why’ we have established through storytelling, into the ‘how’ chapter that can turn yesterday’s anxiety into today’s action and tomorrow’s impact.

Positive, hope- and solutions-oriented framings have been found effective in engaging people in climate issues – using storytelling, humor, and cultural symbols.<sup>191</sup> It’s important to strike a balance between communicating the urgency of the climate crisis, whilst also avoiding overly negative framings, which can lead to desensitization, disengagement, and a lack of belief in one’s self-efficacy.<sup>192</sup> Positive framings can help sustain engagement over time, and when promoting sustainable behaviors should mention co-benefits of said behaviors. Solutions-focused framings should be combined with place-based communication approaches as well as storytelling ([see 6.1](#)).

Personal stories highlighting the impact of climate change on individuals have shown potential in driving emotional engagement with climate change by increasing worry and compassion, climate change belief, and risk perception.<sup>193</sup> Narrative-based communication strate-

gies can effectively foster climate change engagement by reducing perceived psychological distance to the climate crisis.<sup>160</sup>

Emotions like pride, guilt, and anger have been found to influence climate action by increasing intentions to protect the environment, willingness to repair environmental damages, and wanting to punish harmful environmental actions.<sup>194</sup> However, emotional responses are fleeting – in one study, sadness triggered by a film clip about climate change impacts predicted time spent on a carbon footprint calculator and subsequent donations, but its impact substantially lessened with a one-hour delay between viewing the film and making the decision. In turn, the effect was restored if participants made a non-binding commitment to donate right after the film, highlighting the need to consider gaps between emotional responses and desired actions in climate change communications<sup>195</sup> ([see 6.2](#)).

## THE BALL'S IN YOUR COURT

BY PADDY LOUGHMAN

CO-FOUNDER OF STORIES FOR LIFE AND RESET NARRATIVES

Communication techniques aren't cheating, they are the rules of the game seeking to influence human psychology. There is a lingering belief among some communicators and policy-makers that using values and emotion in communications is manipulative and immoral – like cheating. They believe that making change means tending to a public information deficit, and that to 'play fair' we just need to educate people – give them all the facts.

This position is understandable, but misses a crucial fact: facts alone don't move people. You may have spotted the irony here: this fact does not, therefore, move those communicators. So it might help to explain this with an image. As the educator Lynell Burmark puts it: "unless our words, concepts and ideas are hooked to images, they will go in one ear and out the other." Let's try it with a tennis racket: Communication techniques, from framing and emotive storytelling to body language and leveraging values, are not inherently immoral, and they are not cheating. They are simply how to play the game.

If you opt out of using these techniques, you are in fact opting out of the game. Like a tennis player standing on the court without a racket, somehow expecting to return a serve. If communicators want to win the game, they need the right equipment, they need a good tennis racket. This doesn't mean there isn't a moral dimension, there certainly is – it comes in the intention with which they wield the techniques.

Bad actors have been using them with intentions that most would agree are immoral – acting out of narcissism or greed, or convincing people that doing something will be in those people's best interest, when in fact it will only serve the communicator. The history of advertising and politics is full of such examples.

The way communicators then cheat is by lying. Lying is like taking a performance-enhancing drug, because lying can move faster and be more persuasive. Faster because you can make up lies faster than you can prove truths, and because if you can tell people exactly what they want to hear, then it is more likely to be shared. Just like with performance-enhancing drugs, we have to expose and protect people from lying – emphasizing the selfish, immoral intentions of the liar. We've known much of this for a long time.

Whilst facts play a role in communications, it is much more effective to lead with values and emotion. If you want to win the game of persuasion fairly, pick up the racket and play well.

People also need to believe their efforts have a real impact. Paul Slovic's research indicated that individuals often feel more motivated to help one person due to perceived impact – when people believe their contribution makes a meaningful difference, they're more likely to act. He found that support often dwindles when the task seems overwhelming, and that people are more inclined to help one person – rather than a large group – as their contribution feels like having a more direct effect.<sup>202</sup> Lastly, calls to action should be easy to incorporate into daily routines – like the Ice Bucket Challenge, which capitalized on people's daily social media use. When designing action-oriented messaging, communicators should ensure that they are precise, meaningful, and easy for the audience to engage with.<sup>147</sup>

It is crucial to recognize that effective communication is not a silver bullet in promoting sustainable behavior – we also need to heal from the decades of separation of the natural world we depend on. Connecting with nature from a young age has been shown to be a significant predictor of pro-environmental behavior in adulthood. Early and frequent interactions with the natural world foster a deep-rooted appreciation for the environment, which in turn encourages individuals to take actions that protect and preserve it. Children who engage in nature-based activities, such as hiking, camping, or simply spending time outdoors, are more likely to exhibit environmentally conscious behaviors and attitudes in their later years – this knowledge has led to the emergence of environmental and sustainability education programs, recognizing that these connections need to begin at a young age.<sup>203</sup> Along a similar

line, action needs to be taken at the policy level to ensure children and young people have adequate access to green and natural spaces, helping them to maintain physical and mental well-being, and building environmental awareness in everyday life.

The challenge of achieving behavior change in line with the 1.5°C temperature goal is immense, but not impossible. Social scientists are beginning to examine the potential for social tipping point interventions, which could pave the way to rapid transformative change to decarbonize our global society. Such interventions include revealing the morally harmful nature of fossil fuels and thus removing the industry's social license; strengthening climate education and engagement; building carbon-neutral cities; and divesting from assets linked to fossil fuels. Those interventions can reinforce and magnify each other, especially with the emergency of more climate-aware generations which are becoming increasingly politically active.<sup>204</sup>



## CHAPTER 5 – RE:CREATE

# CRAFTING NEW CLIMATE CHANGE NARRATIVES

---



## 5.RE:CREATE

**N**arratives are the very essence of human communication, and have long helped us make sense of complex phenomena. This is particularly evident in discourses around climate change: From the words chosen to represent the crisis – such as 'global warming' versus 'climate change' – to the broader metaphors that define our understanding of it, the way we frame the climate crisis deeply influences public perception and action.

As our understanding of the climate crisis has evolved, so have the narratives we use to make sense of its implications. According to the latest research, we need climate narratives which capture the urgency of the situation, while also providing tangible solutions. A nuanced approach can help us inspire hope and motivate action, rather than drowning audiences in a sea of doomsday scenarios. While alarming narratives can capture our attention, it's the stories of innovation, resilience and progress that truly galvanize people.

A significant factor in these shifting narratives has been the rise of the youth climate movement. Passionate young activists from around the world have not only brought climate conversations back on the table – they have also been instrumental in triggering important policy changes. Their campaigns have led nations to declare climate emergencies and set binding decarbonization goals – underscoring the power of grassroots efforts in rewriting the global climate story.

Another promising development is the emergence of creativity for good ([see 10](#)). More industry leaders than ever are leveraging their world-class creative power to champion sustainability. Creative campaigns are used not only to raise awareness, but also to foster a deeper emotional connection with audiences – making the call for climate action more personal and effective.



## 5.1 CURRENT FRAMES AND NARRATIVES ON CLIMATE CHANGE

### David Fenton's Communication Rules for Activists:

---

#### **CRAFT SIMPLE MESSAGES EVERYONE CAN UNDERSTAND**

Use short, clear, unpretentious language already in common use. Avoid jargon and wonky technical terms, and above all, avoid rhetoric. Not: "We have to cut carbon emissions." Rather: "We have to stop pollution." We may not like "Make America Great Again," but it worked.

#### **PRACTICE FRAMING ISSUES YOUR WAY.**

People think in what linguists call frames – existing circuitry in the brain formed by years of exposure to language. So, frame issues to activate people's existing neural wiring. For example, when you say "pollution," everyone thinks "bad." When you say "carbon," most people don't know what to think, as there is little existing circuitry attached to the word. Also, don't get suckered by responding to the other side's framing – you're only helping them if you repeat it. Not: "We aren't taking away anyone's jobs." Rather: "Those who block climate action are allowing extreme weather to destroy our economy and jobs."

#### **USE SYMBOLISM.**

Incorporate familiar images and phrases with cultural resonance (another form of framing). An apple a day keeps the doctor away. Three strikes and you're out. Don't judge a book by its cover. Pick symbols that are sticky, hard to forget. For example: How much heat energy is climate change trapping on Earth? The same energy as exploding 600,000 atomic bombs a day.

Figure 64: David Fenton's Communication Rules for Activists.

Prominent cognitive linguist George Lakoff argues that our comprehension of the world is deeply influenced by typically unconscious structures known as "frames".<sup>182</sup> These frames not only shape our knowledge, but also guide our thinking and communication. For instance, the frame associated with "hospital" invokes roles and activities such as doctors, nurses, and operations. Rooted in our brain's neural circuits, frames get activated every time we communicate. Many frames connect directly to our emotional centers, highlighting the inseparability of emotion from rational thought. In political and social discourse, the repetition of certain frames acts to normalize specific ideologies.<sup>182</sup>

In contrast to traditional the view of reason as purely conscious, unemotional, and logical – which originated in the Enlightenment period – human reasoning is largely unconscious and rooted in frames, metaphors, narratives and emotions. In climate change communication, it is crucial to frame facts in an effective way – simply presenting raw facts without the appropriate frame often results in the information being ignored or misunderstood, as it may not align with an individual's pre-existing cognitive frames.

Effective narratives involve not only selecting the right words to activate desired frames, but

also constructing those frames in the audience's minds. This task becomes particularly challenging given the deep-rooted and often erroneous frames people might already hold, like seeing nature and humans as separate entities (another notion which originated during Enlightenment). Lakoff argues that the environmental movement needs to simplify its message – often lacking relatable, coherent frames that can be communicated succinctly. Instead of long explanations, environmentalists need clear, compelling slogans that can easily activate the desired frames in the public's mind. This approach, combined with value-based narratives and a thorough understanding of the broader context, could significantly amplify the movement's impact and reach.<sup>182</sup>

Recent climate communication campaigns have faced challenges due to lack of strategic consistency, making them less adaptive to complex and evolving public discourses around climate change. This is thought to have contributed to inconsistent poll findings, diminished media coverage, and polarized public opinions about the issue. Climate communicators use different strategies to achieve different goals, such as encouraging individual behavior change or influencing policy. Historic campaigns have been effective in marrying societal and systemic change through education, mobilization, and promoting solutions – but opponents of climate action have since caught up, launching counter-campaigns and spreading doubts about climate science. The climate movement has

## HOW TO INFLUENCE PUBLIC OPINION

BY DAVID FENTON

FOUNDER OF FENTON COMMUNICATIONS

The brain learns from the repetition of simple messages and visuals – the key is not just in these simple elements, but their frequent repetition. We're aware of what messages and imagery work, but they're not being deployed as needed. To influence public opinion and create urgency, these elements need to be deployed repetitively across various avenues. The next step is to secure social media advertising aimed at diverse audiences and to get cultural figures, influencers, and individuals with large social media followings to actively participate in this educational effort. This process, though, has proven challenging, especially when it comes to raising funds.

Even high-leverage initiatives like building and maintaining a large influencer network have trouble securing adequate financial support. This financial hurdle prevents the scale-up of successful conservative-targeted climate videos, despite their proven efficacy. The delivery of repetitive, emotionally touching, and engaging content is crucial, as this is what influences public perception. Once you've achieved awareness, it's essential to provide clear avenues for people to act - a feature currently lacking, which is, to put it mildly, quite regrettable. If most people were asked where they could take action on climate change, they would be clueless. Current platforms are riddled with jargon, overly dogmatic language, and are focused heavily on identity politics, making them off-putting to the average person. We know how to create more accessible platforms, but it's not happening. Many in the realm of climate philanthropy for communications operate under the fallacy that great policy ideas will simply be adopted. That's the daunting reality we're up against.



also repeatedly failed to rally significant public demand for rapid and broad-scale policy changes.<sup>205</sup>

institutions began reevaluating their financing for coal projects and deeming them financially unstable. Sierra Club's success suggests that climate communications should be reconceptualized – not just as individual cognitive processes or framing but as strategic interventions within power networks.<sup>205</sup>

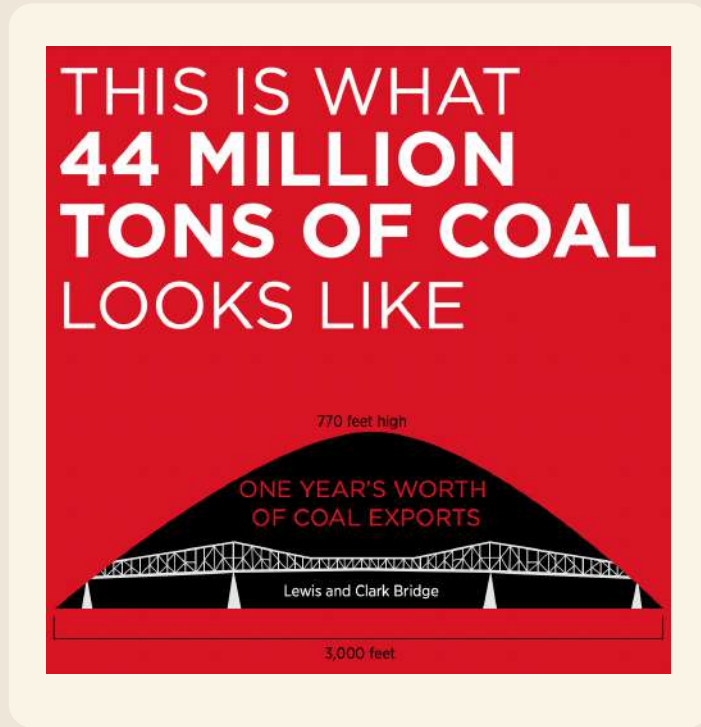


Figure 66: The Sierra Club's Beyond Coal campaign.

The Sierra Club's Beyond Coal campaign is a noteworthy example of aligning communication with potential real-world influence. The initiative synced its messaging and mobilization with available opportunities for policy interventions to achieve systemic change. The movement is thought to have contributed to few of the US Energy Department's 150 coal plant permit proposals being authorized. Beyond Coal's influence became evident when major financial



## EVERY EXPERT NEEDS TO BECOME A COMMUNICATOR

BY LUCY VON STURMER

CREATIVES FOR CLIMATE INITIATOR

We have reached a moment in time when our media cycles, and the messages we see on billboards, in the press and online, are either paralyzing, depressing or defeatist. In stark contrast, the influential and revered communications industry – with its glossy campaigns, memorable slogans and aspirational images – have been selling us lifestyles of overconsumption for decades.

The good news is, there is a growing movement within this industry to write a new story - to understand and unlock the power of narratives to mobilize citizens towards new futures. Storytelling is emerging as one of the key fundamental tools to drive change, as without effective communications, solution holders are failing to gain traction, and greenwashing is diverting goodwill into delay.

We know the solutions to the climate crisis already exist - and that to create real change we don't need 'new inventions'. Just as every communicator needs to become a climate expert, every climate expert needs to become a communicator.

Climate change communication has traditionally relied on the knowledge deficit model, which assumes that people will act if provided with accurate information. But research increasingly shows that values, worldviews and political ideology are much more influential in shaping people's view on and engagement with climate issues.<sup>206</sup> Values and worldviews also influence how much the public trusts organizations and

individuals communicating a given issue: Because many individuals do not have the necessary time, education and interest to engage with climate science, they rely on trusted sources to help shape their opinion.



How we understand climate change is largely shaped by the stories and narratives we are exposed to. These stories influence our perceptions and risk attitudes towards climate change, influencing both individual behavior and action taken at the institutional and systemic level. Stories help to define problems, identify causes and present potential solutions, as well as assigning moral responsibilities. Research has found that narrative messaging is more effective than scientific messaging, as it is more memorable and people are more likely to follow actions embedded in its messaging.<sup>207</sup>

Jones identified three types of stories<sup>208</sup> which are commonly used to make sense of climate change:

- The Egalitarian Story explains climate change as a moral issue and the result of overconsumption. Profit-driven corporations (and governments who facilitate them) are portrayed as villains, and environmentalists as heroes.
- The Hierarchical Story chooses mismanaged societal systems and excessive economic and population growth as the cause of climate change and argues for decisive interventions at the government level. Impartial scientists are portrayed as heroes in this narrative.

- The Individualistic Story frames climate change as either a hoax or not very serious, arguing for market forces to take care of the issue as individuals innovate and adapt to climate impacts.



Researchers from London come up with further examples of narratives,<sup>7</sup> which fall into the three story categories:

Narrativea	Story category	Description	Effect
<b>“Gore” narrative</b>	Egalitarian / hierarchical	Based on the information deficit model and focused on evidence for climate change. ‘Scientization’ of political problems.	Knowledge does not necessarily lead to appropriate behavior. Implicit hierarchy of expert/lay person, which prevents the listener from gaining ownership of the problem.
<b>End of the world / alarmism</b>	Egalitarian / hierarchical	Conveys the danger of climate change impacts on human and natural systems, and the urgent need to take action to prevent it.	Can attract attention, but rarely leads to genuine personal engagement, instead making people feel hopeless, overwhelmed and distanced from the issue.
<b>Every little helps</b>	Individualistic	Campaigns promoting individual behavior change, such as switching light bulbs.	When people are faced with a large problem such as climate change, they feel that small changes they make cannot possibly make any difference, leaving them feeling isolated rather than part of a bigger community working together.
<b>Non-human protagonists</b>	Egalitarian	Use of polar bears and other imagery of wildlife and/or ecosystems, highlighting how they are affected by climate change.	Cynicism and fatigue, ineffective in motivating new interest and action due to overuse. Because polar bears are both physically distant and not human subjects, the narrative also contributes to the “distancing” of climate change by portraying the agenda as someone else’s problem.

Narrative	Story category	Description	Effect
<b>Green living</b>	Egalitarian	Vision of much more drastic changes in lifestyles, story of a society making common sacrifices for the greater good.	Met with resistance because it asks individuals to deviate from the social norm i.e. what individuals consider acceptable according to their values, worldviews and implicit rules within which society operates, as well as preference for habits and the status quo.
<b>Debate and scam</b>	Individualistic	The scientific debate on climate change is still open, or: climate change is a myth propagated by those with vested interests in the climate action agenda.	The journalistic culture of 'balanced coverage' of news topics has led to the over-representation of skeptic opinions in the press.
<b>Carbon-fuelled expansion</b>	Individualistic	Does not necessarily deny human-caused climate change, but emphasizes that climate change mitigation is expensive and will therefore hinder economic growth.	Anything that might increase prices for consumers or slow down economic growth is seen as a barrier to progress.

The importance of language is central in addressing the communications challenge – we urgently need a change in the words and narratives around climate change, bridging the ideological gap and building the political will necessary for robust action. Climate communication expert Susan Joy Hassol suggests reframing scientific terminologies for better public understanding and adjusting the vocabulary around climate solutions to appeal to conservatives, emphasizing entrepreneurship and

market-based solutions. Rather than "regulate" and "restrict", terms like "innovation" and "ingenuity" could be more effective in achieving wider acceptance. Hassol also underscores the need to rephrase terms such as 'greenhouse gasses' to 'heat-trapping pollution', and 'climate change' to 'human-caused climate disruption' to more accurately reflect their implications. Effective communication can help align perceptions with the severity of climate change, mobilize action, and make climate policy a top priority.<sup>45</sup>

## WHY WE NEED BRANDS ON BOARD

BY KAREN LAND SHORT

GLOBAL EXECUTIVE CREATIVE DIRECTOR AT ACCENTURE SONG

In the past eighteen months, we have been building the foundations of a life-centric approach to sustainability. On one hand, we want to address the challenge of complex human lives and unpredictable behaviors. On the other, we need to solve the conundrum of rising emissions emanating from personal consumption and related questions about how we can increase levels of sustainable consumption globally.

If sustainability is not yet mainstream despite organizations' existing efforts, we're asking: What are we missing? How do we make sustainability relevant and actionable for everyone?

At COP26 in November 2021, this life-centric approach began with the Consumer Reality Check. Building on ethnographic and experimental research, we said people were already at maximum capacity and struggling to live more sustainably. We argued that organizations should 'reduce the burden' on people by enabling more sustainable behaviors. We still believe this now, but to bring everyone into sustainable consumption more significantly, we must look beyond the idea of making sustainability cheaper and easier for people.

We need much broader and deeper cultural shifts that won't happen unless we change how brands and companies talk about sustainability and interact with people. The narrative needs to change, but the power balance between people and organizations needs to change too. We need to stop asking "How can we make humans more sustainable?", and start asking: "How can we make sustainability more human?"

While there's been a lot of focus on closing the 'say-do gap' it's closing the relevancy gap between organizations and people that matters. Getting each side more aligned when it comes to sustainability. In our recent Our Human Moment films and reports we began to lay out what this new approach might look like. We focus on human values – the deep-rooted reasons why people might behave in one way over another. And we're already using this new framing of the problem and the route out of it to reframe how organizations are attacking the sustainability challenge.

While the terms 'climate change' and 'global warming' are often used interchangeably, the latter has become increasingly polarized in recent years.<sup>209</sup> Research on framings of climate change found that the term global warming had been increasingly associated with hoax frames.<sup>210</sup> The language we use is important – while it is unlikely to have a substantial

impact on those on the extremes of climate change opinions (for example, deniers or activists), people with moderate beliefs are more likely to be affected by framings.<sup>209</sup> Metaphors matter, too: A study on climate change metaphors with 3,000 Americans found that reading about the "war" against global warming led to greater agreement with scientific evidence,

compared to people who read about the “race” against global warming – possible because war framed induce negative emotions and concepts such as death, destruction and struggle.<sup>211</sup>

In 2019, The Guardian revised its style guide to use terms that more precisely reflect the severity of climate change. For example, it now favors the terms "climate emergency", "climate crisis" or "climate breakdown" over "climate change",

and "global heating" instead of "global warming". At the time, editor-in-chief Katharine Viner argued that words like "climate change" seem passive given dire predictions by scientists. This change aligned with the evolving terminology of climate scientists, global organizations, and political entities, and was accompanied by global carbon dioxide levels in the Guardian’s daily weather reports.<sup>212</sup>

## SYNCING NARRATIVES WITH THE SCALE OF THE CHALLENGE

BY BEN WALKER

STRATEGIC COMMUNICATIONS LEAD AT LAUDES FOUNDATION

There's a pressing need to transform the discourse around climate action, shifting our focus from the costs associated with a green transition to the opportunities available to workers, communities and society as part of a just transition. This change in perspective is particularly relevant when discussing the built environment, which accounts for nearly 40% of global carbon emissions. Unfortunately, our narratives often fail to convey both the magnitude of the challenges we face and the opportunities at hand. At Laudes Foundation, we’re taking steps to rectify this critical oversight and drive meaningful change.

Buildings are not just where we sleep and work; they are where we grow-up, raise families and share celebrations. Housing is a human right. Yet too often buildings are reduced to an item on a balance sheet. By redefining the value we assign to the built environment, we can both tackle the emissions from construction and buildings, and address the global housing crisis that climate change has further intensified.



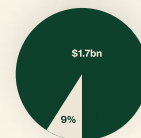
**The built environment represents nearly**

40% of global emissions



**40% of global emissions**

are homeless or live in grossly inadequate housing, often without access to basic services like water, sanitation, or electricity.



**9% of \$1.7bn**

Of the \$1.7bn spent on climate philanthropy, only 9% is spent on buildings AND cities.

Figure 66: Relationship between the built environment and climate change.

Our built environment program has to date invested more than €40 million into supporting foundational change through targets, measurement, and regulation. However, we recognize that change needs more than funding – it needs stories. That's why we're funding a first-of-its-kind study to undertake a review of the narrative perceptions of how the built environment relates to a just climate transition.

This study, conducted by 89up and Demos Helsinki, is examining both existing debates and research, as well as how different demographics and geographies resonate with these narratives, to define a new narrative which will have universal appeal, is easy to understand and can be transformed into key messages which will form the bedrock of the transition.

Our ultimate goal is to create an enduring narrative for the built environment. One that corresponds with the proportionality with the challenge. One that is echoed each time a housing policy is written, an investment proposal presented, or a new emissions campaign launched. By focusing on this narrative shift, we can catalyze transformative change and equip industry leaders and policymakers with the insights needed for a sustainable transition.

Understanding and effectively communicating about climate change is crucial for inspiring wide-scale action. When discussing climate change, the way information is presented can greatly influence public reactions and decisions. Clear, consistent, and relatable messaging, repeated frequently, is essential for successful communication. As we work to address climate change, it's vital to ensure our communication methods are straightforward, actionable, and can drive real change. Everyone, from experts to brands, has a role to play in this communication effort. But coming up with simple messages

isn't enough – we also need to empower and break free from the persistent doom narratives which have taken hold of popular climate discourse.





## 5.RE:CREATE

### 5.2 IS DOOMISM THE NEW DELAY?

---

“Doom-mongering has overtaken denial as a threat and as a tactic. Inactivists know that if people believe there is nothing you can do, they are led down a path of disengagement.”

— **Michael Mann, climatologist, in *The Observer***

When we discuss climate change, the way we discuss potential futures dramatically influences our public response. Many of us are inundated with images and stories of melting ice caps, raging wildfires, and species extinctions. This deluge of negative information, while factual, can often induce a sense of fatalism. A significant portion of the population, both young and old, believe that the future looks grim. Such bleak perspectives lead many to feel that the situation is hopeless – but overly positive framings highlighting only successes can lead to complacency, and the belief that the necessary work is being done already.

There is a middle ground between these extremes. Balancing our narratives doesn't mean diluting the truth – it means presenting a holistic picture. Recognizing the urgency of the

climate crisis is just as essential as celebrating progress. By connecting the stark reality of climate change with evidence-based hope, we can foster a sense of informed optimism, and motivation to be part of the solution.



## WHY WE NEED NEW CLIMATE NARRATIVES

BY ZOE TCHOLAK-ANTITCH

COMMUNICATIONS COORDINATOR AT GLOBAL COMMONS ALLIANCE

The current narrative on climate is not helping us create a better world. 63% of people under the age of 25 in OECD countries believe that humanity is doomed in their lifetimes. Increasing numbers of young people are choosing not to have children as a result. Some are already thinking of themselves as the “last generation”.

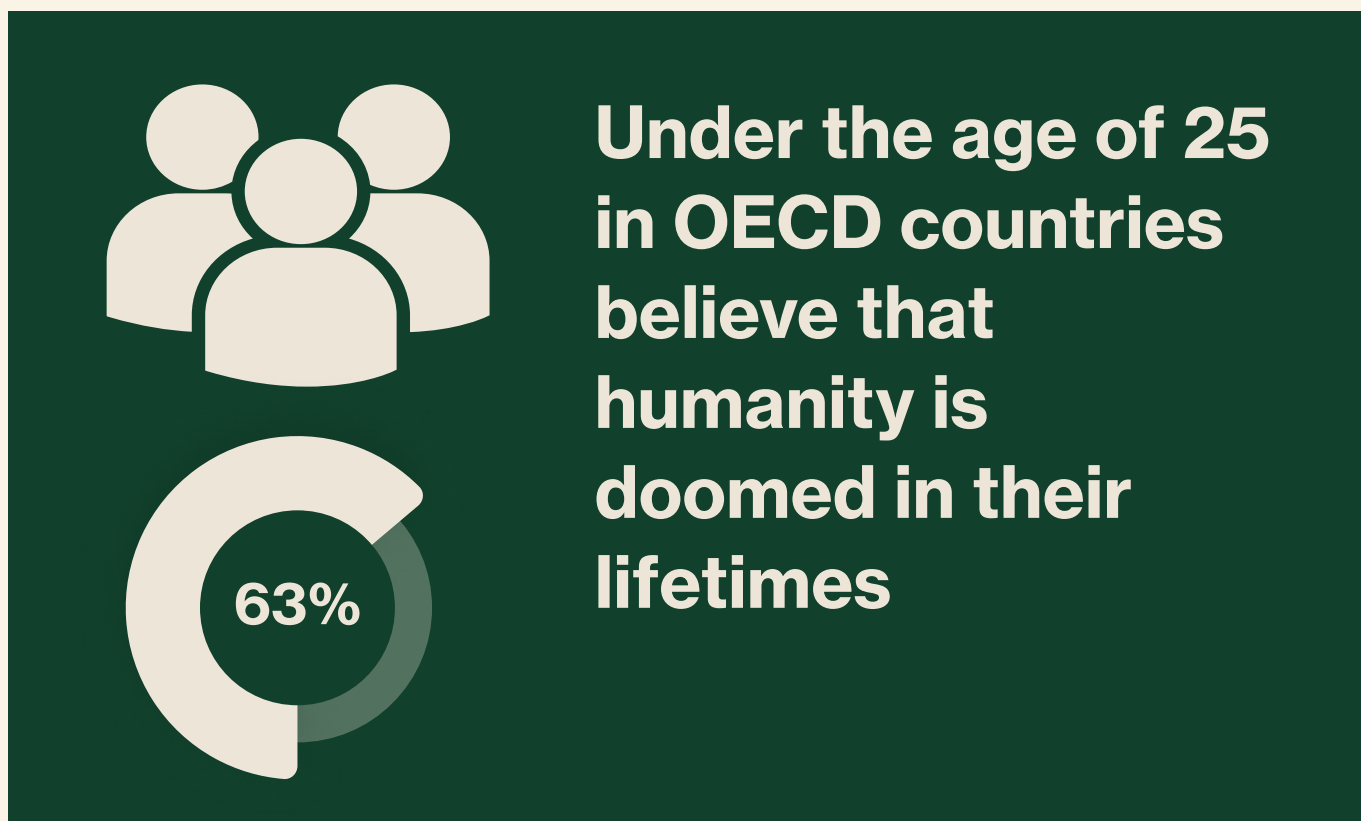


Figure 69: Share of people under 25 in OECD countries who believe humanity is doomed in their lifetimes. Source: OECD.

This is also felt among older generations, where resignation that 'we are doomed' is settling in. 73% of adults in Europe and 66% in North America believe that climate change is real, serious and happening now, but only 25% and 12% respectively believe we can do anything to avert it at this point in time.



# 73%

Adults in Europe believe that climate change is real

# 25%

Adults in Europe believe there's nothing we can do to avert it at this point



# 66%

Adults in North America believe that climate change is real

# 12%

Believe there's nothing we can do to avert it at this point

*Figure 70: Percentage of adults who believe climate change is real, and that we can do anything to change its course.*

*Sources: Eurobarometer and Yale Program on Climate Change Communication.*

This fatalism is spurred on by media, social media and creative content, and often deliberately constructed. We could even go so far as to say that this defeatism is the new denialism - the doubt we are good enough to turn things around has become a huge burden we keep dragging around.

Many media articles still describe our toughest challenges - especially on climate - as invincible and hopeless. Is it any wonder that people are beginning to give up? We need stories of possibility and interconnectedness more than ever. We need to feel like we are part of a great generational endeavor where we can actually, yes, really, create a better world for everyone.

Depictions of the future with regards to the climate crisis are often dire. The belief that it's already too late for humanity to avoid runaway climate change, social collapse, or near-term human extinction, climate doomism, has been criticized for being a "slippery slope to losing hope",<sup>213</sup> and a new form of climate denial. While some proponents of doomist narratives build their careers on those narratives, they are qualitatively different from fossil fuel companies'

discourses of delay.

Climate doomism, or the belief that the impacts of climate change are inevitable and beyond our control, poses a significant threat to climate action – potentially leading to the same inaction as outright denial. Often stoked by inactivists, doomism disengages people from the issue and even plays into the hands of deniers by discrediting firmly established science. The

belief that people need to be shocked into action has been proven counterproductive – instead, emotions like worry, interest, and hope have been shown to be more motivating.

community, many of the most extreme predictions about future climate change are rooted in speculation, rather than sound scientific evidence.<sup>160</sup>

## THE MEDIA FOCUS NEEDS TO CHANGE

BY MARCY FRANCK

SENIOR COMMUNICATIONS STRATEGIST AT HARVARD C-CHANGE

In 2022, climate change accounted for only 1% of all coverage in U.S. broadcast media, and over 40% of that coverage focused on disasters like extreme weather events, heatwaves, and water shortages, according to Media Matters. Only 6% focused on the Inflation Reduction Act – America’s largest-ever investment in climate action – and only 2% focused on COP27, where world leaders moved forward with international cooperation on climate progress.

When you combine negative news coverage with misinformation campaigns funded by the fossil fuel industry that spread climate doom and denial, it’s no wonder that doom has permeated our psyches, harming mental health and convincing many that climate action is futile. But just beyond the headlines, the world is already transforming how it generates energy, transports people and things, designs buildings, and grows food. These actions can create a thriving, equitable future, and we urgently need to change the narrative to reflect this reality – because to be successful, we’ve got to hurry up, and we need all hands on deck.

“Inactivists”, a term coined by climate scientist Michael Mann, use doomism to drive disengagement and dampen the momentum of climate activists. They also use it to feed into anti-climate action narratives, discrediting science and causing confusion. The best antidote to doomism is to foster cautious optimism that the worst impacts of climate change can still be averted.<sup>61</sup> Rather than attacking scientists or ambitious climate policies, doomists instead imply that climate action is futile. These narratives of climate action can take the form of ‘doing the inner work’ or ‘making peace with the inevitable’. While climate doomism is seen as fringe in the scientific community, it has proliferated on social media platforms such as TikTok. While some ‘climate doomers’ are part of the scientific



## HOW “WORLD-ON-FIRE” MESSAGES PUSH US AWAY FROM CLIMATE SOLUTIONS

BY WILL HACKMAN

CONSERVATION AND CLIMATE ADVOCACY EXPERT

There are countless examples of climate activist messages that rely upon images of doom. Perhaps one of the most widely recognizable is one that depicts the entire Earth held in the palm of a human hand, one side of the Earth Garden of Eden and the other side fire and brimstone. The message is clear -- we have the power to “Save The Earth;” that the fate of nature is literally in our hands.



Figure 71: The “World-on-Fire” vs “Save The World”. Credit: ParabolStudio.

While true in some regards, this image doesn’t do much to build advocacy messages that connect to a broader audience. Fear-based messages only tend to work for those already committed to an issue. World-on-fire messages can be disempowering and breed apathy, resentment, and escapism. They can cause people to emotionally shut down if they believe that an issue is too large for them to solve, that there’s nothing they can do.

Similarly, framing climate activism from the perspective of saving the Earth can convince many that humanity and nature are inherently pitted against one another in a zero-sum game. Creating this false separation between us and a natural world we are very much part of and rely on for our own survival is a tactic we can no longer afford. Certainly, human industrial society and plain greed have depleted many of our natural resources. I get that, as I work every day to conserve land and marine ecosystems. But the reality is that we are also the only ones who can counteract the damage we have caused.

If our message is one of hopelessness and the pitiable plight of the natural world we have ruined, we will not galvanize audiences to positive action. We must convince more humans that the threat to our environment is crucial to them, personally. Why should a Midwestern farmer care about melting glaciers thousands of miles away? Because it is not just the polar bear that suffers from the worst drought in twelve centuries or deadly flooding – both of which can cause crops to fail. Nature-based messages don't work with everyone and images associated with them, like the polar bear, may even be contributing to polarization.

As the impacts from climate change get progressively more severe each year, apocalyptic messages may seem warranted. But, in fact, they are overly simplistic, mostly inaccurate, and contribute to a negative and divisive advocacy that pushes us further away from solutions.

Humans have evolved to pay more attention to negative information as a survival mechanism. Media outlets are aware of this and bombard us daily with news of disasters, freak accidents and murders, skewing our perception of how often these events occur. The same is true for reporting on climate change, with the latest series of IPCC reports having sparked dire headlines for weeks. But the reality is that fear and anxiety are more likely to make us shut down rather than change our behavior, trigger-

ing our biopsychological flight and freeze responses – or, as some psychologists started calling it, “headline stress disorder”.<sup>214</sup> Negative information on climate change should always be followed up on with concrete and accessible action points, as well as framings of hope and opportunity ([see 5.3](#)).



“I don’t actually think we are equipped, physiologically or mentally, to be delivered catastrophic and confusing news and pictures, 24/7. We are analog creatures in a digital world.”

— Krista Tippett, *On Being* podcast

Dire headlines such as “now or never” might deter action as they suggest an unattainable goal, leading to resignation rather than motivation. This feeling of hopelessness can be exploited by vested interests such as the fossil fuel industry. Fear-based framings of climate change are dominant in media portrayals and political campaigns – but research shows that an overemphasis on the magnitude of climate risks and impacts may be ineffective in changing behavior or triggering meaningful personal engagement.

If threatening media frames are not balanced with solutions and actionable coping strategies, negative feelings can lead to reduced motivation to act. While fear-based framings do capture audience attention, an over-reliance on them has mixed outcomes and can even lead to counterproductive reactions. These include psychological resistance to climate action when audiences feel that their personal freedom may be constrained, reduced perceived credibility of the news source itself, or even denial and avoidance.<sup>110</sup> Instead, climate communication experts advocate for acknowledging the urgency of the

climate crisis, while emphasizing our agency and the importance of each fraction of a degree in reducing climate impact. Anger, rather than anxiety or depression, could be a more effective motivator for climate action.<sup>6</sup>

**RECOMMENDATION:** Overly grim scenarios should generally be avoided in climate communications as they run the risk of causing anxiety, despair, and inaction. However, some scholars worry that overly optimistic portrayals may foster complacency, which highlights the need for framings of hope and opportunity to be followed by concrete and accessible action suggestions. This is not to say that we should ignore the very real threat that climate change poses to our planet, and communicators should convey both the dangers of climate change alongside opportunities for action. However, climate doomism can be a dangerous trap that prevents us from taking the transformative action that’s needed in order to limit global warming to 1.5 degrees or less. Research shows that while fearful representations of climate change have more potential for attracting people’s attention, they are an ineffective tool for motivating genuine personal engagement. Therefore, climate change threats should be framed through a lens of action, rather than fear and doom.



## CLIMATE DOOMISM AND WHY WE NEED TO TACKLE CLIMATE INJUSTICE

BY ISAIAS HERNANDEZ

CLIMATE EDUCATOR AND FOUNDER OF QUEER BROWN VEGAN

Black, Indigenous, and People of Color (BIPOC) are often taught to normalize pain – whether it's social, racial, or environmental. These injustices have influenced the understanding of BIPOC on how they can react in both external and internal situations. BIPOC often find themselves silencing their pain, continuing to exist in an extractive system designed to oppress marginalized communities. Climate doomism is a popularized term that has risen on social media, with many media news outlets proclaiming that there is no hope left for the planet. Climate doomism is often used as a scare tactic to disempower communities on their journey for environmental liberation. Mostly, climate doomism fails to address the role of white supremacy and how it has contributed to the degradation of land, culture, and species.

Climate doomism leads to division in movements – including harmful myths like ecofascism that blame BIPOC communities for the climate and ecological crisis. Anxious responses to climate change can look like creating brutal, isolationist views that uphold white supremacist ideologies. There is a real risk that climate doomism can lead people to project their fear and insecurity on immigrants and other marginalized groups – especially in the US, where mass-shootings motivated by eco-fascist ideologies have already occurred.<sup>215</sup> We are also seeing countries invest in the border and surveillance industry to target, imprison, and inflict violence on those leaving their lands due to climate change.

Climate doom is not sustainable – instead, we need to invest our energy into the communities that create change. Investing in ourselves and each other requires creating circular relationships with our community, land, and self. There are days I feel weak and strong simultaneously, times when I am told I am not doing enough – and there are days I know I am impacting at least one person in my life. The society we live in today beats us down to think we are hopeless and powerless – when, in reality, we hold much power to create unity amongst ourselves, and change in the wider world. But nourishing a better future starts with talking about it differently.

Susan Joy Hassol notes that fostering constructive hope, as opposed to passive hope, encourages more action and support for climate policies,<sup>45</sup> as per a 2019 study by researchers at Yale and George Mason University.<sup>216</sup> This involves enhancing people's belief that individual and societal actions can make a significant difference. Instead of propagating narratives of doom, it's essential to

tell stories of the many benefits that can be reaped from the transition to clean energy and nature protection. Painting a vivid picture of a better, renewable-energy powered world with more walkable cities is crucial. Hassol underscores the psychological importance for people to understand that the journey towards a better world is already underway.<sup>45</sup>



Given our current capabilities, we're in the best position in history to bring about positive changes. Agencies like Accenture Song who specialize in impactful communication encourage a positive, solutions-oriented approach over focusing on negative climate imagery, which can be paralyzing rather than motivating. Highlighting inspiring solutions can spur creative thinking and productivity, ultimately driving more effective and impactful action towards sustainability. It's all about being utterly biased towards positive, actionable steps.<sup>108</sup>

---

“If it’s all doom and gloom, people don’t get excited about the solutions. But if you’re passionately committed to tackling inequality, for example, one of the biggest things that you can do is take climate action.”

— Anna Lungley, Chief Sustainability Officer at Dentsu

The creative community has taken up the challenge of striking a balance between the urgency of the climate crisis and humanity’s capacity to build a better future. Marketing and advertising professionals are in the best place to craft impactful campaigns thanks to their ability to shape narratives and influence public opinion. Using a mix of emotion-driven storytelling, data

visualization, and innovative digital platforms, they aim to not just inform but also motivate action. By collaborating with climate experts, creative industries can ensure that their content is accurate and science-based, while design can bring climate realities to life in a way that resonates with mainstream audiences.



## IMAGINING A BETTER FUTURE

BY ALLY KINGSTON

CREATIVE LEAD AT PURPOSE DISRUPTORS

The futures we dream of depend largely on the source material our imagination is working with: images and ideas gathered from our education, our politics, life experiences, and our Netflix and YouTube habits. Exposed to a daily cocktail of cortisol-raising news media and dystopian blockbusters, we have become quick to imagine visions of some hopeless, apocalyptic future. Perhaps if pressed, we might entertain the slim possibility of some whizzy, techno-powered utopia for ourselves instead. Both options feel extreme, and neither is socially useful.

As Geoff Mulgan said, “we can more easily imagine the end of the world than a better future.” When our imagination defaults to these extreme visions, we lose ourselves in the picture. With no agency to influence them, we feel powerless, and become apathetic about change in the present. The logic of climate doomism asks, why try and redirect our course if we’re screwed anyway? Our imaginations have in effect been taken hostage by these images of collapse, creating a tyranny of no alternatives.

To achieve our climate targets, it's crucial to imagine a better, yet realistic future. Good Life 2030, a project by Purpose Disruptors, invites culture-makers to this exercise. Surprisingly, picturing life in this greener future often leaves us at a loss. It's time we create more source material for our collective vision, giving people a compelling sense of the goal we're pursuing. The ad industry, with their knack for picturing improved lifestyles, could be invaluable in this. The average UK citizen sees 10,000 daily ads, imagine this creative power channeled towards an ecologically balanced future.



Since 2021, Purpose Disruptors' Client 2030 brief has challenged creatives to build "brand warmth" campaigns for 2030, using real UK citizens' visions of a connected, nature-centric future. So far, over 500 creatives, including major agencies, have joined, with work featuring at events like COP26 and iconic places like Piccadilly Circus.



Figure 67: Interrupting the commercial break - Good Life 2030 takes over Piccadilly Circus.



Figure 68: Advertisement of industry creatives - Credit: Pete Ashworth, Laura Costello & Fiona O'Grady, Creatives for Climate

While this project has focused predominantly on advertising industry creatives, interest from the wider cultural sphere is growing. At this critical moment in history, a growing cohort of culture-makers are recognizing their responsibility to offer supportive source material for the collective imagination. And instead of feeding our minds with extreme visions that prompt apathy, doing the harder work of imagining the "practical utopias", the plausible versions of a Good Life.

Climate communicators have a key role to play in shaping the perceptions and actions of wider society. Creative industries in particular are uniquely positioned to reshape climate narratives – by striking a balance between alarming realities and inspiring possibilities, they can lay the groundwork for transformative change. By harnessing the immense power of storytelling, media, advertising and marketing have a responsibility to craft narratives that capture the urgency of our situation, while offering glimpses of hope. This has the potential to inspire broader audiences to become active participants in our collective journey towards a more sustainable future.

“As imperfect as our solutions may be, the capacity to confront and overcome great difficulties is renewable, limitless, and always worth nourishing and celebrating. The rest of the story of repair, regeneration, and connection still needs to be written, and the pen is in our hands. As we enter the next phase of the decisive decade, we must seek, discover, and cultivate our own innate strength, while also offering our shoulders to support others. It is only together that we will be able to transform the weight of climate anxiety, stress, and fear for the future into empowerment to live our best lives and write the new story of the Anthropocene.”

— Christiana Figueres, in *Project Syndicate*



## 5.RE:CREATE

### 5.3 TRAINING THE COMMUNICATORS

Existing spokespeople such as climate scientists, journalists and government officials have an important role in helping the public understand climate change and what it means to them. But not enough energy is invested in supporting these groups to communicate the issue effectively.<sup>229</sup> While some useful resources exist, such as the IPCC's communications handbook for climate scientists, these efforts must be more widespread and comprehensive.

To meet the challenge of the climate crisis, the way trusted messengers communicate to the public is also in need of change. For too long, climate discourses have been defined by calls for individual behavior change, rather than system-level action. But attention is starting to shift towards recognizing the role of corporations and governments – not least through initiatives such as The YEARS Project:



## MOVING BEYOND THE INDIVIDUAL

BY JOEL BACH

EXECUTIVE DIRECTOR OF THE YEARS PROJECT

Over time, we have become firm believers in communicating to the public that it is not their responsibility to solve the climate crisis – but rather that of companies, institutions and governments. Too many of us have fallen sway to the idea that we as individuals are responsible for this mess. That if only we were to recycle more, fly less, eat better and generally lower our carbon footprint, the climate crisis would be solved. The YEARS Project is working to dispel this myth: The truth is that we are simply not going to achieve the needed carbon reduction goals to stabilize planetary warming without massive intervention by both major companies and governments.

That's not to say that individual actions aren't important. They are. They catalyze more individual action, including community action. We will always welcome, support and encourage individual action. But we are determined to flip the narrative and communicate to the public that the onus for solving climate change falls not on them, but on those most responsible for the crisis. As such, our communications efforts are laser-focused on moving corporations and governments to take action – as well as motivating individuals to urge such action.

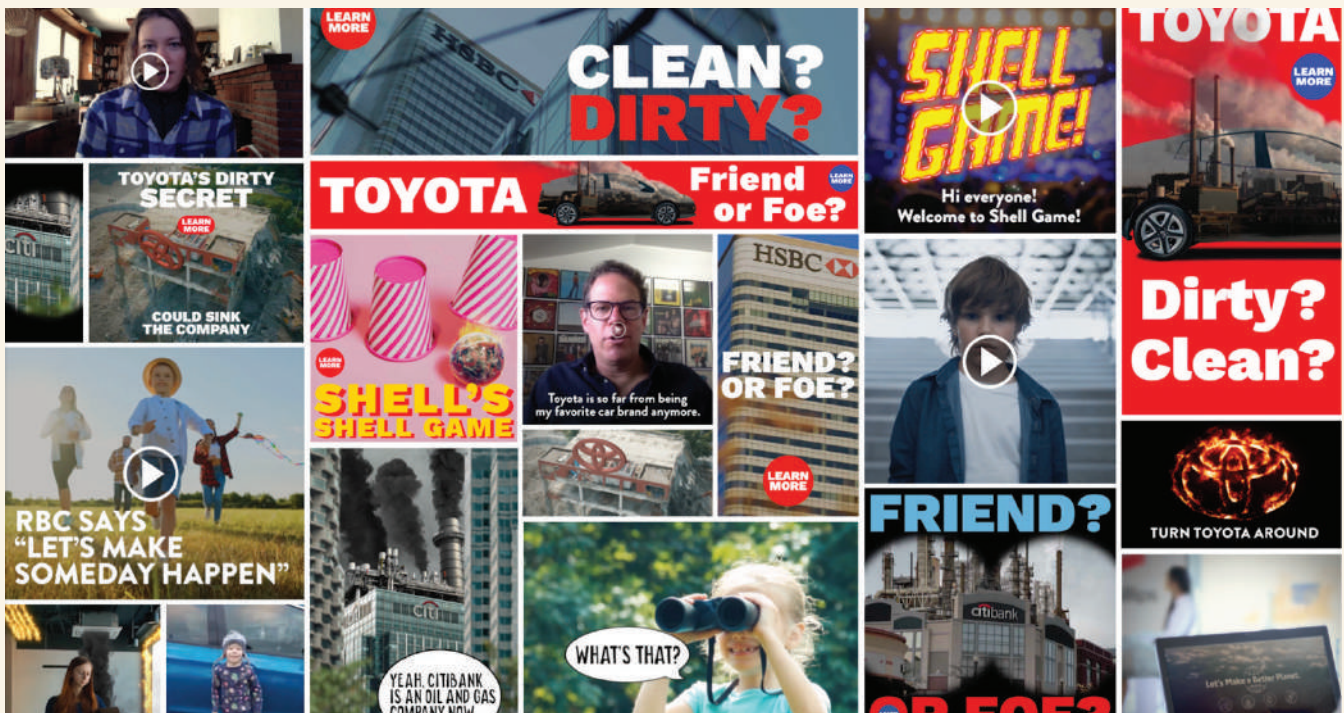


Figure 74A: The Accountability Project pressured large international brands to take action to tackle the climate crisis.

In 2021, we launched The Accountability Project, pressuring large international brands to either take bolder steps towards climate progress or reverse their practices that support the fossil fuel industry. We've partnered with a wide variety of campaign organizations and have created social-first digital ads, both video and static, to drive viewers to those campaigns. We're very strategic in the placement of our ads – they are not for public consumption. Instead, we're trying to reach people associated with each target brand – upper management, employees, shareholders and customers. The great advantage of paid ads on social media is that we are able to reach these target audiences, and see with precision the amount of engagement and lift each ad produces. In one recent case, we saw an attitudinal shift of 42% among employees at a brand. In another case, 81% of customers took a pledge to stop buying Toyotas until the company cleaned up its act – only because of our ads. Most importantly, we're seeing our target brands start to move in the right direction and make long overdue climate pledges.





Figure 74B: Building Up and Reaching Out campaign, advocating for environmental justice.

For our Building Up and Reaching Out campaign, we create video content with and for predominantly Black-, Brown-, Indigenous- and women-led climate frontline organizations to highlight community-based solutions and environmental justice efforts. In addition to Hollywood-caliber, emotionally-resonant and movement-accountable film production, we've implemented our same distribution plan for these "solutionaries" to reach millions, aiming to enlist more people to the climate fight by showing them the many ways in which race, economic justice and equity are all tied to the climate crisis. We also help frontline communities increase their influence for large-scale climate action, and support their fundraising and mobilization efforts. Our frontline partners are seeing increased attention to frontline narratives, a large increase in donations and recruiting as a result of our collaborations.

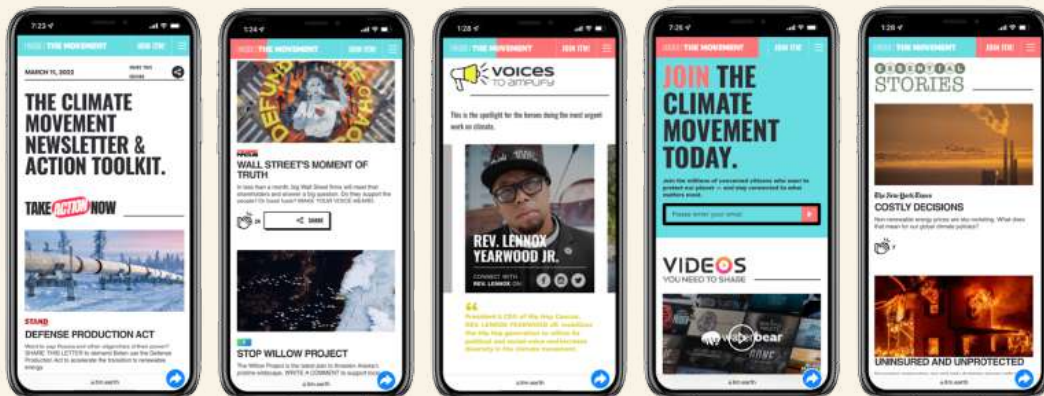


Figure 74C: Inside the Movement - the first climate newsletter.

As the pandemic turned the world upside down in 2020, we took time to reflect on how we could best serve the movement as a digital climate communications organization. We decided that in addition to running our own campaigns, we ought to lend our digital and storytelling expertise to others. Every year, we are on the lookout for campaigns that are moving the dial but need that extra push – organizations that could win more of their fights if only they had digital assistance. To find those campaigns and organizations, we created Inside the Movement, the first-ever climate newsletter and action portal featuring the latest campaigns, actions, news, science and shareable content of the climate movement.

**RECOMMENDATION:** The climate crisis has moved beyond being a purely scientific issue and is now one of politics and communication, the media landscape must be utilized to facilitate the transformative change that needs to happen to avert severe future impacts. In order to create an informed public, increase policy support and inspire meaningful personal engagement, four things need to happen in the media industry:

(1) Journalists must be confident to communicate high-quality, unbiased & accessible information

with regards to climate change and solutions.

(2) Media should be used in a democratic and educational way, moving away from sensationalism and towards increasing climate literacy.

(3) Public trust should be rebuilt with the help of relatable and diverse spokespeople and through an intersectional lens.

(4) Diversification of imagery and spokespeople in climate change in order to increase its representativity.

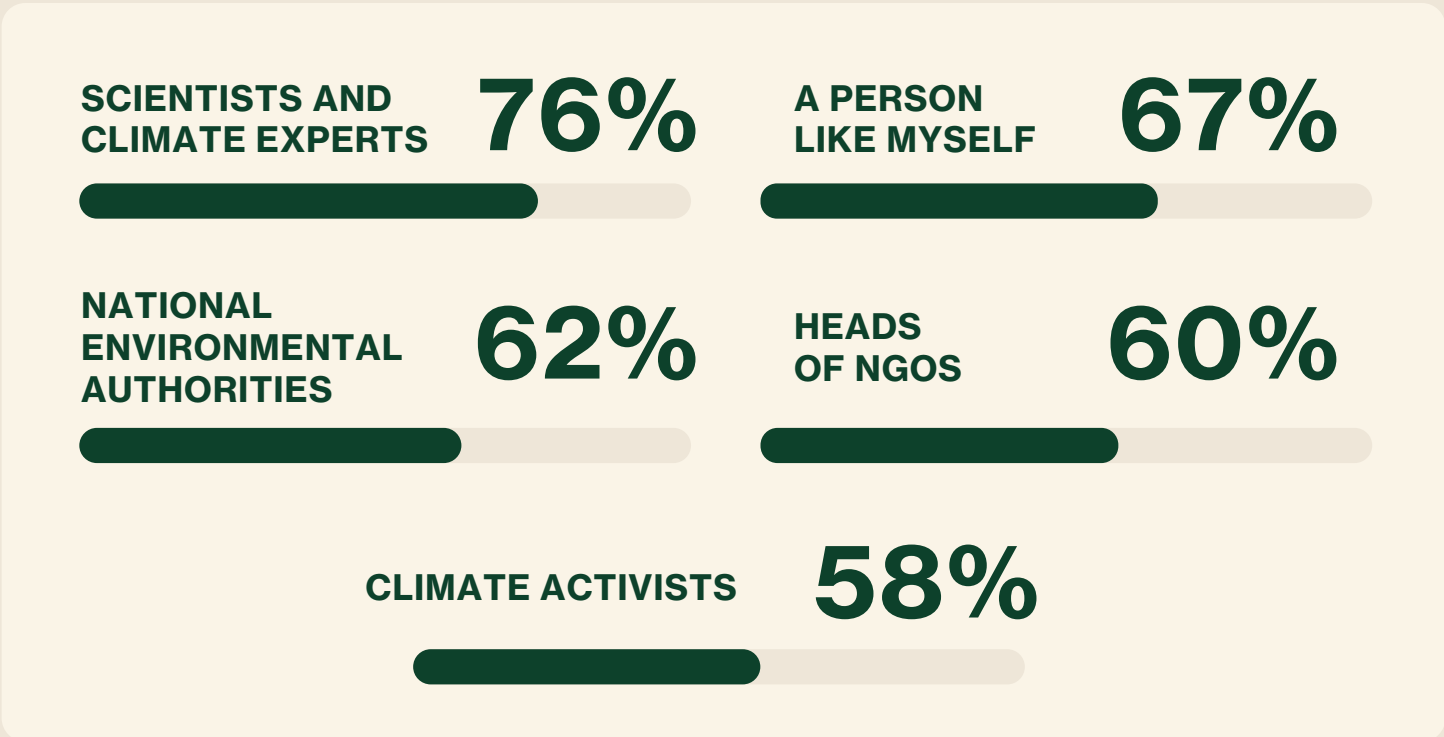


Figure X: People’s level of trust in different climate spokespeople. Source: Edelman Trust Report 2022.



The report recommends showing the benefits of climate action for society and individuals - in particular health, their country's global competitiveness and energy security, as well as job creation.<sup>6</sup> Peisker recommends focusing on regional environmental events and issues (particularly salient ones like flood and drought) to reduce psychological distance.<sup>155</sup>

Diversifying the imagery and spokespeople associated with climate change is crucial to broaden its relevance. By reaching out to and supporting representatives from various social groups, each with their unique concerns, we can facilitate more inclusive conversations and move beyond already familiar perspectives. By promoting communicators who speak authentically and with integrity, we can bring climate change to the forefront, using language and themes that resonate with a wider audience.<sup>31</sup>



## BUILDING TRUST

BY SWETA CHAKRABORTY

RISK AND BEHAVIORAL SCIENTIST AND CEO OF WE DON'T HAVE TIME

It has long been established that a failure to manage trust results in a failure to manage risk. Mapping perceptions has the potential to uncover and manage previously overlooked cognitive triggers, such as trust, that have been established to be of consequence in how communications are processed and interpreted.

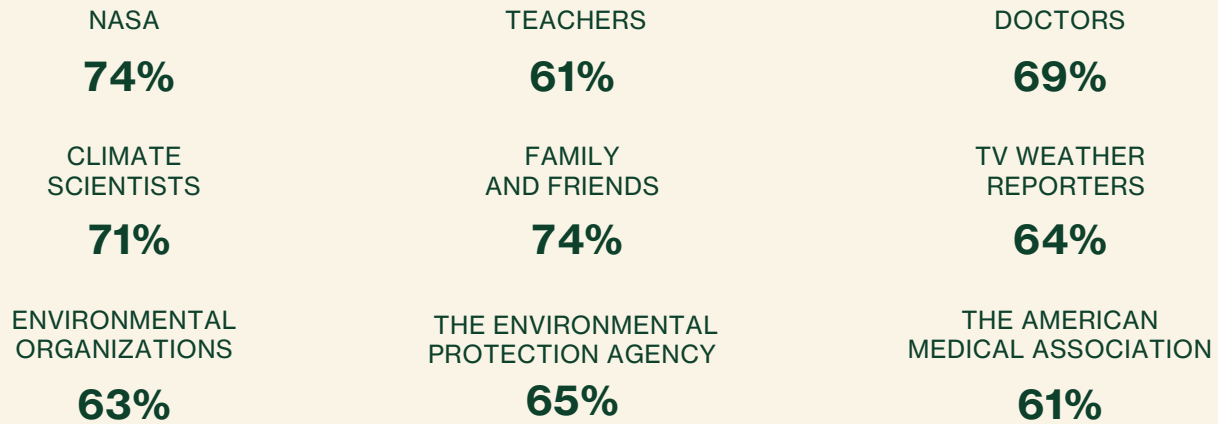
Behavioral science literature has shown that up to 50% of the variance in decision-making is attributed to how trusted the communicator is to an audience; it's also been established that there is an immediate shared trust when the communicator resembles the recipient.

Identifying a network of trained communicators that resemble the audiences needing to be reached is an empirically founded strategy for successful risk communication. Building relationships with potential spokespeople who hail from the communities looking to be reached is a sound recommendation rooted in behavioral science.

To support people in engaging with the climate crisis in a meaningful way, governments, businesses and institutions will need to work with trusted messengers. Research in the UK found that climate scientists, respected activists, and relatable peers ('people like me') regularly rank highest in terms of credibility and trust.<sup>101</sup> But their potential as climate mobilizers is frequently under-utilized.



## IN THE US, THE MAJORITY OF PEOPLE TRUST



are also trusted to deliver reliable information on climate change.

Figure X: Trust to deliver reliable information on climate change among the US citizens.  
Source: Yale Program on Climate Change Communication

These messengers should be engaged to communicate the harm that climate change is already doing to communities - such as health impacts and damage to homes and other infrastructure from extreme weather.<sup>143</sup> In contrast, only 30% of registered voters in the US trust the Fox News Channel as a source of information about climate change, and 24% trust oil and gas companies.<sup>217</sup>

Activists are key players in the communication landscape, but often do not receive formal training – a missed opportunity, seeing as their passion and authenticity holds immense potential for mobilizing the public. Organizations such as NEON recognize this challenge, and work to train activists and campaigners in effective communications for broadcast media, providing regular messaging guides on nuanced issues such as climate justice, the cost-of-living crisis, or upcoming UN climate summits.

Another US-based study by More in Common and the American Press Institute this year sho-

wed that people want a balance of positive and negative news stories, as well as more solutions-focused journalism. While most Americans value “spotlighting problems in order to solve them”, 63% say that the media should do more to “report on solutions as much as problems”. Fortunately, this trend is already mirrored in the profession, with a survey by Reuters Institute showing that about three quarters of 303 surveyed international media leaders plan to do more solutions-oriented journalism, and the thirds planning to publish more inspiring content.<sup>218</sup>

The study also showed that local media was seen as better than national media at focusing on issues that affect people’s everyday lives and helping them have a voice. These outlets hold a lot of promise in being people’s first point of engagement with climate issues – highlighting local impacts on the environment, community and employment, as well as the benefits of climate action.

## Americans Want Positive, Solutions-Oriented Narratives About Society

"Indicate your agreement with the following statements." (% Agreement)



Source: Survey of 2000 U.S. adults conducted in 2023.



Figure 73: Perception of Americans about the desired narratives about society.

Source: More in Common and the American Press Institute.

The ways in which we communicate about climate change hold immense power – shaping both our perception and actions. Research on framing shows us that human understanding is influenced by both logical reasoning and deep-seated emotions. To transform climate communication, data dissemination alone is not enough. Our messaging must resonate with people's existing cognitive and emotional structures. Current narratives around climate change are an amalgamation of scientific data, political beliefs, values, and public trust – success stories and grim portrayals both play a role in effective communication, but a balance between the two is vital to foster constructive engagement. An overemphasis on the catastrophic impacts of climate change can cause resignation, while an exclusively upbeat outlook might result in complacency. The key is to strike the right chord between urgency and hope – between the scale of the crisis and the knowledge that we can still avert the worst impacts.

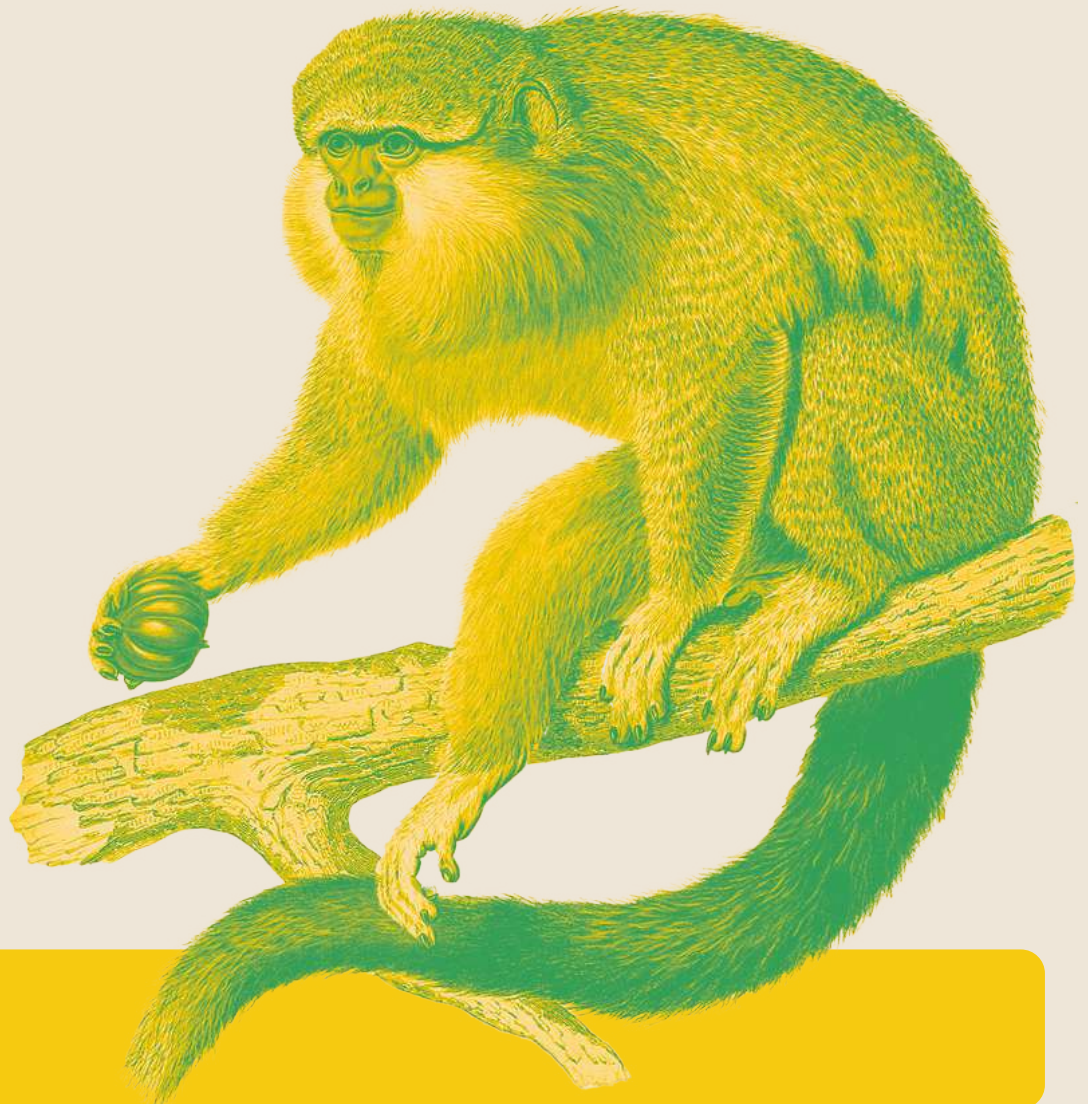
The media landscape reflects an evolving

understanding of this balance. There's a growing desire for solutions-based journalism, which, while acknowledging the problem, also sheds light on tangible ways to address it. The role of the creative sector also cannot be understated. Storytelling, backed by data and expert insights, can be a powerful tool for change. By crafting narratives that merge urgency with hope, we can galvanize people into action and push us closer to a sustainable future. But to do this, we must utilize existing communicators' capacity to mobilize public action – from scientists, journalists, business and creative leaders.

While established spokespeople, including scientists and journalists, have been at the forefront of this work, their potential remains under-tapped. Emphasizing both the urgency of the crisis and the promise of solutions is pivotal to avoid complacency and despair – the media's current trajectory towards solutions-focused journalism is encouraging, with the creative sector playing a pivotal role in storytelling that drives change.

**RECOMMENDATION:** Harnessing the unique strengths of varied communicators, from diverse backgrounds and expertise, is essential. In addition to existing spokespeople and communication channels, there's a need to train activists – especially from younger generations – in effective communication strategies. Their passion and energy, coupled with effective messaging, can be a game-changer in driving climate action. Further, our pool of climate spokespeople needs to be expanded to encompass the creative industry. Artists, filmmakers, musicians, and other creatives have a unique ability to convey complex ideas in relatable terms – making them invaluable in the climate conversation. By integrating their voices into climate discourses, we can craft a richer, more diverse narrative that resonates with a broader audience.

By connecting messages of urgency with hope, tangible solutions with overarching narratives, and local insights with global perspectives, we can inspire collective action towards a sustainable future. But to do this, we must invest in, empower, and leverage the power of voices that are trusted by the public.



## CHAPTER 6 – RE:IMAGINE

# TRANSFORMING CLIMATE COMMUNICATIONS

---



## 6.RE:IMAGINE

**E**ffective climate communication requires more than just facts and figures. It requires engaging stories that can connect with a wide audience – fostering hope, optimism, and a vision for transformative change. Storytelling can help us frame the challenge ahead of us around opportunity and collaboration, evolving climate communications to engage the public on a more meaningful level.

Often, we're only talking to those who already agree with us – this echo chamber effect is one of the major challenges we need to overcome. To broaden our reach, we must craft messages that appeal to diverse audiences – centering our communications around stories that showcase collaboration and hope in action.

We are lucky to already have an incredible wealth of expertise from the creative industry at our fingertips. These world-class communicators have honed their skills over years and decades – crafting compelling narratives, designing impactful campaigns, and engaging broad audiences. Their powers reach beyond traditional climate science communication – they understand how to tap into human emotions, cultural nuances, and the power of visual storytelling. By collaborating with creative industries, we can shape our messages in a way that not only informs, but also inspires action.



## 6.RE:IMAGINE

### 6.1 THE POWER OF CLIMATE STORYTELLING

Stories are one of the most fundamental ways humans make sense of the world. Stories have been found to increase the likelihood of prosocial behavior, & even release oxytocin – the ‘love hormone’ that is released while breastfeeding or when we hug a friend.<sup>219</sup> What kind of story we tell is crucial here – ideally, one rooted in hope and possibility rather than fear and despair.<sup>32</sup> Most of our communication happens through anecdotes & stories, rather than graphics & statistics. According to Climate Outreach, relatable human stories can help shift climate change from a scientific to a social reality.<sup>184</sup>

---

“Anything we ever achieved started with someone imagining it first. So if we can’t imagine a way out of the climate crisis, it just can’t happen. We know that the crisis is getting worse every single day, and many of us are losing hope for our future. But despair is not an option. We must rise up and meet the greatest challenge of our lives with stubborn optimism. And imagining is the first step.”

-Xiye Bastida, in *Imagine The Future*, YouTube

Effective storytelling can induce "transportation" into the narrative, enabling listeners to deeply immerse themselves and be moved by stories. Research has shown that narratives with dramatic arcs can elevate levels of cortisol and oxytocin in individuals. Elevated oxytocin levels are linked to an increased feeling of empathy – prompting people to exhibit prosocial behavior, such as donating money. Another study involving public service announcements (PSAs) saw participants being given either synthetic oxytocin or a placebo – those administered oxytocin showed a notable increase in concern for the PSA characters, and were subsequently more inclined to donate to relevant charities, donating 56% more than those given the placebo.<sup>220</sup>

The oxytocin release through listening to stories is powerful in eliciting pro social behavior: In a study by neuroscientist Paul Zak, participants who were given synthetic oxytocin donated 57% more to charity than participants given a placebo. Similarly, hearing information in narrative form results in a higher likelihood of prosocial behavior.<sup>220</sup>





“Unlike numbers or facts, stories can trigger an emotional response, harnessing the power of motivation, imagination, and personal values, which drive the most powerful and permanent forms of social change.”

-Bella Lack, activist, in *Storytelling Will Save the Earth*, *Wired*

## STORIES TO SAVE THE WORLD

BY ANNA JANE JOYNER

FOUNDER AND DIRECTOR AT GOOD ENERGY

My father is an evangelical pastor, and my religious upbringing helped me to see early on the power of stories to change our world. The stories my father told from the pulpit shaped the lives of the people in his congregation in profound ways. The only other stories I've ever seen have the same power over people are on the screen – and almost none of them are talking about the biggest story of our time: the climate crisis.

The climate crisis is a surreal, heartbreaking global horror show that's happening in real life, right now. Why aren't we talking about it? The conversation has to begin in our stories, in the spaces where we allow our hearts and minds to explore new possibilities and old fears. If we can talk about it in our stories, we'll be able to talk about it in real life – and we urgently need to do just that. We need to investigate what it means to be human in the age of climate change. We need to envision some ending other than the apocalypse. We don't need just one hero or savior: we need a billion saviors, working together for a common purpose. We need all of us, doing whatever the hell we can.

I started Good Energy because stories are vital to finding the courage to face the climate crisis. But I also started it for a much more personal reason. I've worked in climate my whole adult life, and have struggled at times with profound climate anxiety and anger and grief. The truth is, I need these stories. I need to see myself and my friends and my world on-screen. I need help making sense of all this – and finding joy and beauty in the midst of it. I need you. And so do many millions of others.

There are no silver bullets when it comes to the climate crisis. But everybody can help by doing what they do best – which, in your case, is to tell stories. As it happens, that is one of the things we need most. If we all tell the climate stories we want to see in the world, those stories can help save the world. To help make this a reality, Good Energy created *A Playbook for Screenwriting in the Age of Climate Change*. It's a guide to incorporating climate into any existing story, as well as conjuring new climate stories. You'll learn how to apply the Climate Lens™ to any element of a script and to understand the spectrum of ways climate can show up on-screen.

We've gathered expert-informed material, from the real-world adventures of climate heroes, to the dark obsessions of glaciologists, to climate impacts like scorpion attacks and blood snow. The playbook includes contributions from an amazing group of climate experts, communicators, and storytellers, with pieces by climate scientist Dr. Kate Marvel, storyteller and climate poet Mary Annaïse Heglar, journalist Amy Westervelt, and many others.

Watching my father tell stories that changed his congregants' lives, I knew I was watching something magical. Now, I know it was more than magic: it was the deepest truth of what it means to be human. It was the raw power of stories to shape the world. That's the power you hold at your fingertips.

Stories are typically perceived as more accessible, persuasive, memorable, and engaging. They're a powerful and effective method for climate change engagement, particularly when they employ positive language and "wrap facts in emotion".<sup>221</sup>

Stories allow communicators and listeners to:<sup>222</sup>

- 'zoom out' and see the bigger picture of possibilities and assumptions,
- 'zoom in' to better understand micro-dynamics and local scale context,
- 'zoom through' by looking at what's behind the surface (e.g. cultural dimensions, power dynamics, symbols and framings), and
- 'zoom and hook' by capturing or re-steering both listeners and storytellers

Stories are a powerful device to elicit emotions and therefore reduce psychological distance to climate change. This is especially true for personal stories of climate change consequences, which increased worry and compassion in the listener and therefore likelihood of engagement. Some research points to findings indicating that both negative and positive emotions should be triggered, to avoid both complacency and hopelessness. Sometimes, a viral story can lead to widespread change in policy and business practices - such as the viral video of a sea turtle injured by a plastic straw in its nose, which is thought to have contributed to Seattle, the UK, and Starbucks banning plastic straws.



# HUMBLE STORIES FOR HEALTHY SYSTEMS

BY PADDY LOUGHMAN

CO-FOUNDER OF STORIES FOR LIFE AND RESET NARRATIVES

Stories are an ancient technology. For thousands of years they have helped to guide us through reality. Stories of all kinds, in many forms. From our myths, legends, parables and fairytales, to our textbooks, blockbusters, taglines and headlines; from the physical design of our homes and cities to the design of our digital products, and the stories they carry about our relationships and values.

These stories surround us like water surrounds fish, run through us like coding, and underpin us like roots and soil<sup>223</sup> – often unnoticed but always present – shaping how we think, feel, and act everyday. They are how we efficiently transmit information and understanding. How we maintain or change social norms. How we imagine<sup>224</sup> and promote different ways of being. They can be used as light, web or glue.<sup>225</sup>

We all carry and create stories, not just the professional storytellers who work in communications, journalism, politics or the arts. Telling stories is an innate human tendency, one of the defining features of our species.<sup>226</sup> A practice that can enable us to design viable systems together, and thrive. Considered amongst other technologies, stories are exceptionally powerful. As the Hopi proverb describes it: “the one who tells the story, rules the world.”

But as with any power, this power is limited and must be handled responsibly.<sup>227</sup> Bayo Akomolefe warns: “stories are performative, there is always something left out”.<sup>228</sup> Much as our eyes can only see a narrow band of the light spectrum, stories can offer only a limited lens on an inconceivably-complex reality – stories cannot tell the whole story.

Sometimes we fill our stories with truth and love in pursuit of healing, but sometimes we pollute them with fear and lies that cause harm. As you read this, our shiny new ‘AI’ technologies are making such pollution easier.<sup>229</sup> So how can we ensure that our stories reduce harm and promote health, as good guides through reality?

Answering this means accepting three things:

1. Stories are just a map. ‘A map is not the territory’, but a map that misreads the territory is dangerous. To be a good guide, stories must be soberly grounded in an accurate estimation of reality.
2. Stories are relational. To accurately estimate reality, we must acknowledge that “the whole of the cosmos is relational” (as Iain McGilchrist describes). So stories determine and are determined by our relationships with each other and the more-than-human world. They do not stand alone and neither do we.

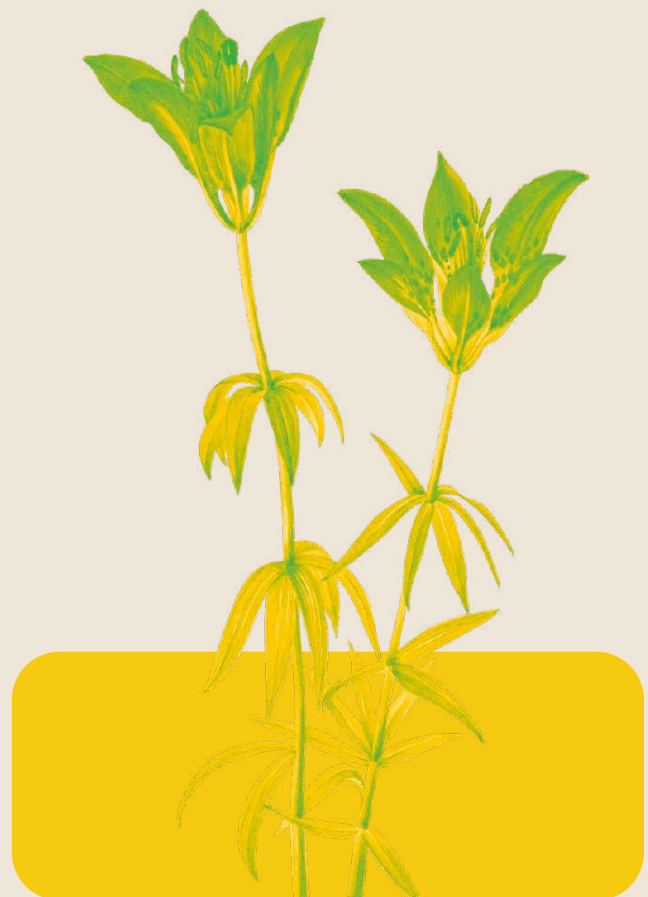
3. Stories are “living entities” (as Vanessa Andreotti puts it). They are forever breaking down and being reborn in response to the ever-emerging uncertainty of reality, which is easily forgotten by a culture that craves control, capture, and permanence. To navigate the complexity of reality and our relationship to it, we will need many different, always-evolving stories.

Recognizing that narratives are merely representational maps, intrinsically relational, and living entities perpetually evolving is imperative. They should accurately capture the interrelatedness of our existence within the broader cosmos, adapting in tune with the constant flux of reality. Many of our present narratives are flawed, promoting dominion and control, leading to a damaging crisis of relationships. To restore health and avert destruction, we need to realign our narratives to genuinely reflect the dynamism of our existence.

We can tell ‘better’ stories, stories that soberly estimate reality, helping us form healthy relationships and design viable systems that serve life. But doing so means accepting the three things above, and that demands something else we sometimes struggle with today: humility. The humility to accept that we must navigate reality, not the arrogance to expect that we can control it. The humility to recognize our vulnerability in the face of limits, and the risk in believing we can transcend them. The humility to carry many better stories, together.

In “Research shows that research isn’t good at changing people’s minds”, the Common Cause Foundation argues that the value we assign to narratives and deep frames often outweighs the impact of bare facts on our worldviews, as we are more likely to disregard challenging data than to question our deeply held beliefs. The focus, therefore, is shifting from an overreliance on facts to the power of compelling narratives in influencing perspectives, acknowledging the role of stories that resonate with people's core values.<sup>230</sup>

Understanding the deeper, often emotional reasons why people care about issues is key. It's not simply about the raw data; it's about our shared humanity and our ability to connect. Though emphasizing the economic benefits of climate action can be effective, some argue that appealing to profound human connections may be even more powerful – as Common Cause put it, “it's about appealing to the heart, not just the head”.<sup>230</sup>





## SPEAK TO THE HEART FIRST, THE MIND SECOND.

Don't just recite facts – they only work inside stories that touch people's emotions through moral narratives. Whoever holds the moral high ground wins. Not: "We have to get to net zero by 2050." Rather: "Our children deserve a future, so we must act against polluters."



## STORIES NEED GOOD AND BAD CHARACTERS.

People learn from stories about people. Think climate activist Greta Thunberg against the "blah, blah" politicians doing nothing.

Figure 80: David Fenton's *Communication Rules for Activists*.

Storytelling is a tool through which we can build agency and empowerment. An effective line of messaging offered by ClimateXChange is that "climate change is not a cliff but a slope. The choices we make individually and collectively can and will pull us back up. This framing gives us agency in understanding that nothing really is a given, and that no future scenario is inevitable, but is instead dependent on the decisions we make right now".<sup>32</sup>

This notion of agency extends to the wider audience, where the act of storytelling can help connect diverse stakeholders and foster imaginative forms of collaboration and collective action<sup>231</sup> – by allowing to change the dynamics of who speaks, who gets heard, and even who hears. While science poses barriers to entry and understanding, stories are one of the first modes of communication we learn and are therefore inherently accessible.

In fact, stories of grassroots mobilization and activist successes can help build a sense of self-efficacy, which is a crucial factor in engagement. Concrete examples of successes inspire hope, while emphasizing the importance of climate action. In this context, storytelling approaches can also be used to raise awareness of alternatives to the status quo and "awaken people's political imagination".<sup>183</sup>



### CASE STUDY: INDIGENOUS STORYTELLING AT BIG SKY DOCUMENTARY FILM FESTIVAL

The Big Sky Documentary Film Festival is hosted by Nia Tero annually in Missoula, Montana. Centering Indigenous filmmakers, it helps connect creatives to opportunities and networks, as well as showcasing their work. At the heart of the initiative lies narrative sovereignty - supporting the sharing of Indigenous stories by Indigenous peoples who are best able to tell them comprehensively as members of their communities. Historically, Indigenous communities have been under-represented in media, and their stories told on their behalf - narrative sovereignty upholds Indigenous peoples' power to tell their own story, allowing wider society to understand their true histories and break down stereotypes previously perpetuated by the media industry.<sup>231</sup>

Big Sky also hosts the 4th World Media Lab, a year-long fellowship for emerging and mid-career Indigenous filmmakers providing opportunities for skill development, networking, masterclasses and meetings with industry decision-makers. The program is now running in its eighth year.

Collaborative storytelling in particular is a powerful approach for explaining scientific facts, inspiring and engaging people, as we tend to respond more favorably to narratives than statistics.<sup>232</sup> For instance, the [Climate Storytellers Collective](#) is an emerging network built from a UNFCCC Network of collaborations in 2021, which seeks to support the coherence, further capacity building, and spreading of climate empowerment learning and actions through storytelling in multiple media forms. To maximize the impact of these approaches, scientific facts should be connected to familiar cultural stories. By sharing stories of possible futures and successes of activism and community action, the public can be engaged more meaningfully with climate issues, policy, and grassroots action.<sup>221</sup>

It's important that we consider the desired outcome of storytelling approaches, as different techniques may yield different effects for engagement. For example, portraying an entity as the "bad guys" is effective in mobilizing short-term campaigns, but can sometimes

hinder sustained engagement by fostering pessimism and impeding constructive communication.<sup>183</sup> Using binary narratives of "good guys and bad guys" should be approached with caution as they can lead to polarization – however, they also provide accessible frameworks for mobilization (for example, "the people vs fossil fuels").

However, this binary approach is not without its critics: As elaborated on by [Clover Hogan at Change Now 2023](#), a binary 'good' and 'bad' focus on individual actions can result in change paralysis, as people only feel their advocacy and actions will be valid if it is completely void of hypocrisy. The fixation on individual actions has created a myth of perfectionism and served as a vehicle to undermine the credibility of people who are simply trying to make a difference. Therefore, it is necessary to emphasize how everyone needs to mobilize no matter how sustainable their current lifestyle is, or the number of potential change-makers would be incredibly limited.

## THE POWER OF NARRATIVE

BY WILL TRAVIS

FOUNDER OF ELEVATION BARN

The importance of communication in solving the climate problem is often missed. People need to feel included and celebrated in solutions. There's a huge deficit of confidence in sharing and celebrating the entire journey. If people see their impact and are acknowledged for it, it fuels further action. Remember, everything – religion, currency, government – is built on the power of a story. A poor story gets no attention. When you look at something like 'My Octopus Teacher', they crafted a captivating narrative that emotionally engaged audiences with an octopus.

The power of story can facilitate participation. Take NFTs, for instance. Despite the current negative perception, they offer a digital connection allowing people to feel involved, akin to bat boxes I used to look after in my childhood. Having your own bat box evoked a sense of responsibility, a physical connection with nature that fosters a protective instinct. This is what we need to recreate.

Too often the narrative is one-sided, and gets stuck behind unrealistic visualizations and romanticism. Role models are often romanticized, presenting an unattainable image that disconnects people from their true values. This promotes a feeling of inadequacy. Romanticism exists only in the mind, not in the doing. We need to change that, make people feel important, that they belong, and that they can contribute.

I founded Elevation Barn from a craving for belonging and self-celebration, to help my comrades elevate their purpose through the strength of collective insight and support. I leverage my experience building global brands, stressing that stories are the lifeblood of infatuation with products or services. Early on, I found fuel in helping conservationists and philanthropists worldwide elevate their stories, something I found the advertising world sorely lacking due to its hands-off accountability. Storytelling is a potent tool, and often weaponized by brands and controllers for manipulation rather than purpose elevation. Elevation Barn is often viewed as a retreat – but it was born to encourage authenticity and collaboration, inspire vulnerability and help us realize our interdependence. Now spanning 48 countries, our ambition is to unite this force behind planetary challenges.

In the Elevation community, I see individuals striving for accountability daily – to the planet, their communities, and crucially, themselves. Imagine a world where we connect everyone through something as universal as footwear, embedding messages of hope and creativity. In a world where many feel unseen, we can quickly change the narrative by fostering this sense of connection and purpose, winding back to times when everyone felt like they were part of a larger, collaborative journey.

An architect friend was once tasked with designing a city on the moon, and found the solutions needed there were exactly what Earth requires: Realizing it might not be sustainable to have livestock, the community would need to embrace vegetarianism. The inability to burn fossil fuels would necessitate reliance on solar power. Adapting to a changing climate would mean part of the habitats would have to be underground. There would need to be a different governance system, one that truly empowers its citizens, with a digital currency replacing the inefficiencies of physical money.

Sometimes, a shift in perspective is necessary to spark change, much like our peripheral vision that is more reactive to sudden threats than our focused vision. Our societal systems often put blinkers on us, keeping us focused on certain demands to maintain control. Now, we're witnessing a transition where these blinkers are coming off. The challenge is to rebrand our engagement with communities and nature. Each of us has a unique strength, and it's time to utilize these for the collective good.

Effective communication, especially in the social sector, often deals with abstract concepts like justice and innovation, which can lead to diverging interpretations. Utilizing visual language can create clearer, more universally understood messages. As Harvard cognitive scientist Steven Pinker points out, humans are inherently visual beings – and concrete language helps form visual images, thereby increasing understanding and retention. A study by Princeton University linguist Adele Goldberg's highlights that metaphorical phrases linked to physical experiences – such as "sweet" compared to "kind" – activate emotion-centered brain regions.<sup>147</sup> To apply these insights, communicators should ensure that their content paints a vivid picture to facilitate stronger connections with their audience. When crafting messages, utilizing visual language can not only capture attention but also create a lasting impact.

Imagery is another effective form of storytelling, and has been gaining traction through the world of organizations such as Climate Outreach and their Climate Visuals project. Humans are visual animals – and our understanding of the world is shaped by what we see, and how this makes us feel.<sup>233</sup> It has been argued that imagery can help counter harmful media narratives such as those surrounding climate refugees,<sup>222</sup> and can be a powerful tool for communicating climate solutions.





### 7 principles for visual climate storytelling<sup>233</sup>

- Show real people, not staged photo-ops: Authentic images of few or only one individual are more compelling, especially when the subject makes eye contact. This can include photos of climate impacts or low-carbon lifestyles ‘in action’. Photos of politicians are generally not perceived very favorably.
- Tell new stories: While familiar images such as polar bears and ice sheets can be useful for audiences with limited knowledge or interest in climate change, they can also cause cynicism and fatigue. Less familiar and more thought-provoking images can remake the visual representation of climate change in the public mind.
- Show climate change causes at scale: People do not necessarily understand the links between climate change and their daily lives. The link between behaviors and climate change should be shown at scale, such as a congested highway and industrial pollution.
- Climate impacts are emotionally powerful: People are more moved by seeing the destruction caused by climate change, compared to causes and solutions. To reduce overwhelm, pictures of climate impacts should be coupled with concrete action points for behavior change.
- Show local (but serious) climate impacts: Localized climate impacts with identifiable emotions are likely to be most emotionally powerful, but also risk trivializing the issue by not linking it enough to the global picture.
- Be very careful with protest imagery: Images of protesters cause cynicism and do not resonate with people unless they already identify as activists. Campaign-related jargon like ‘climate justice’ means little to most people. Protest images involving people directly affected by climate impacts were seen as more authentic and therefore more compelling.
- Understand your audience: Levels of concern determine how people react to climate visuals, and are driven by people’s values and worldviews. Images that are effective across the political spectrum include climate impacts at scale, localized impacts, as well as low-carbon behaviors such as installing loft insulation.





Figure X: Asian Cairns – Sustainable Farmscrapers for Rural Urbanity by Vincent Callebaut Architectures, Shenzhen, China

Artistic renditions of possible futures have made their way into pop culture in recent years, engaging people with environmental issues and futuristic solutions without the need for scientific jargon. Solarpunk is an example of this trend – a global community united by a vision of a just, sustainable future, grounded in hope, resilience and equity. Originating from a 2008 blog post on sustainable technology, solarpunk has evolved to encompass art, real-world activism, and a broader movement for envisioning possible futures. Drawing inspiration from sustainable architecture, permaculture, the DIY movement, and the works of popular science fiction authors, solarpunk is characterized by a spirit of rebellion and anti-authoritarianism. The “solar” symbolizes a commitment to renewable energy,

while the “punk” highlights resistance against societal norms and power structures.<sup>234</sup>

There is growing awareness that many dominant solutions to climate change – proposed by tech moguls or government policymakers – are driven by some of the root causes of the crisis, such as an obsession with constant growth and progress that is contributing to environmental degradation, inequality and widespread mental health issues. In contrast, movements like solarpunk offer alternative visions that combine advanced technology with a strong sense of community, sustainability, and purpose – emphasizing decentralized solutions, local energy production and community farming.<sup>235</sup>



Figure X: *The Fifth Sacred Thing* by Jessica Perlstein [www.jessicaperlstein.com](http://www.jessicaperlstein.com)

But visual climate storytelling reaches beyond the realms of academic research and subcultures – Hollywood is well-aware of its impact, too. Oscar winner Adam McKay and Executive Producer Staci Roberts-Steele launched the non-profit Yellow Dot Studio with the intent of creating videos and other materials that will raise awareness of climate change and other issues, often told through the lens of comedy. McKay, known for films such as *The Big Short* and *Don't Look Up*, is an advocate for inspiring action through both educating and entertaining his audience. Staci Roberts-Steele, who collaborated with McKay on *Don't Look Up*, recently went viral for producing a satirical “Chevron

Ad”, which received over 4.5 million views in one day<sup>236</sup> – reaching potential new audiences and educating them on the dangers of climate misinformation.





Figure X: Yellow Dot Studio's "Chevron Ad (May 2023)

While such media interventions are vital, it's essential to ensure they motivate rather than just inform. Some evidence suggests that while environmental visual media trailers effectively demonstrate climate change issues and elicit strong negative emotional responses, they often fall short in motivating viewers to effect change. Viewers are dissatisfied with the predominance of doom-and-gloom narratives that leave them uncertain about their potential contribution towards solutions, which could potentially lead to desensitization. To overcome this, one study suggests filmmakers use more local, solution-oriented, action-based content, and innovative presentation approaches. Environmental narratives should be reframed in non-partisan ways and explore different film genres.<sup>237</sup>

Recently there has been increased academic interest in the potential of games as tools for social change – focusing on their capacity for active engagement rather than passive consumption, experiential learning, emotional impa-

ct, and accessibility. Games can serve to raise awareness, advocate for change, create empathy, and build communities around pressing social issues. For example, games can teach players about complex issues like poverty, or allow them to experience the role of an activist addressing unfair labor practices. Some games have successfully highlighted the challenges of living on a minimum wage or brought attention to the less-known aspects of smartphone production. Through their scalability and accessibility, games have the potential to reach large audiences and incite significant social change.<sup>238</sup>

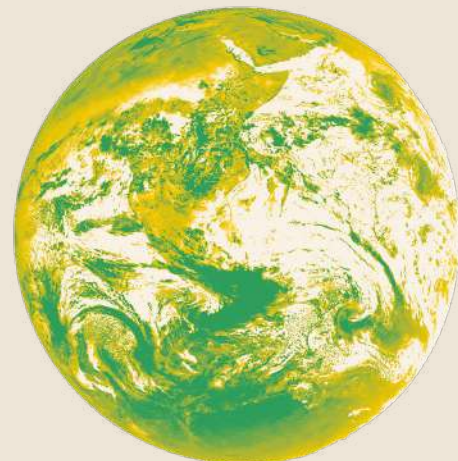




Figure 78: 2050 Paris Smart City - Green Buildings, by Vincent Callebaut.

Hero characters play a powerful role in shaping attitudes to climate change, in particular perceptions of risk and policy preferences.<sup>208</sup> Fictional role models have undeniable cultural impact – both good and bad – affecting values and behaviors in a way that is less conscious but more impactful than simply telling people what to do.<sup>239</sup> For example, the popular TV show *Emily in Paris* promotes a lifestyle of high consumption and fast fashion, while films like *Don't Look Up* can make people more motivated to take action. As Reverend Yearwood said, “In a time of crisis, we need to have many, many, many heroes. The only way you can create this is through culture and storytelling.”<sup>240</sup> Despite the positive image of heroes, those who get in the spotlight are people like us: flawed. While a single person should not have to carry the weight of representing the whole climate movement, it is up to the movement to strengthen its representation as an ensemble.<sup>241</sup>



## TRANSFORMING HOLLYWOOD

BY SAMUEL RUBIN

CO-FOUNDER AND IMPACT OFFICER OF THE HOLLYWOOD CLIMATE SUMMIT AND  
FOUNDING MEMBER OF THE ECCA CONVENING TEAM

As a young Millennial, the content I watch highly influences and broadens my worldviews. Growing up, I explored my queer identity through TV shows like *Modern Family* and *Pose*, and films like *Blue Is The Warmest Color* and *The Devil Wears Prada*. Experiencing community building through storytelling motivated me to become a social impact producer. After a decade working in the entertainment industry, I've realized that all social issues I care about are interconnected and rooted in environmental justice.

In 2019, I co-founded the Hollywood Climate Summit (HCS) to design community spaces for creators and culture-shapers to build collective power and leverage their creative skills to drive climate action. The consolidation of the Summit as an annual event indicates that there's a growing appetite for climate stories in mainstream media. In recent years, groundbreaking non-profits like Good Energy have emerged to provide screenwriters with resources like the *Climate Storytelling Playbook*. Indeed, research conducted by Good Energy, alongside USC Annenberg Norman Lear Center, concluded that only 2.8% of all TV episode and film scripts released between 2016 and 2020 featured any climate-related terms. To bolster current climate storytelling efforts and unite the cultural sector on shared climate goals, we need to strengthen partnerships, share learnings, and bring together a wide range of industry stakeholders across the globe. To accomplish this paradigm shift the UNFCCC is currently forming a sectoral initiative entitled 'Entertainment and Culture for Climate Action'. (ECCA). Ultimately, the goal is to develop an interdisciplinary reporting framework that activates climate awareness and action through the narrative power of creative industries. We need storytellers, screenwriters and producers worldwide to come together and commit to attaining the industry's sustainability goals and shifting narratives around climate action. Are you in?

Understanding the power of narratives is more relevant than ever. UK researchers have proposed a 'unifying strategic narrative' in the stories we tell, which addresses the complex range of actors that need to be engaged on climate issues, provide a coherent explanation for government strategy, and harness drivers of behavior change. Such a strategy will be necessary to create 'buy-in' from the public, which is fundamental for introducing climate measures in democratic countries.<sup>7</sup> ClimateXChange recommends a vision for the future that reiterates that we are already well on our way to get there.<sup>32</sup>



“A goal for public engagement around low-carbon lifestyles is to begin a dialogue to reimagine ‘a good life’, one that is compatible with a low-carbon world.”

**-Bella Lack, activist, in *Storytelling Will Save the Earth*, *Wired***

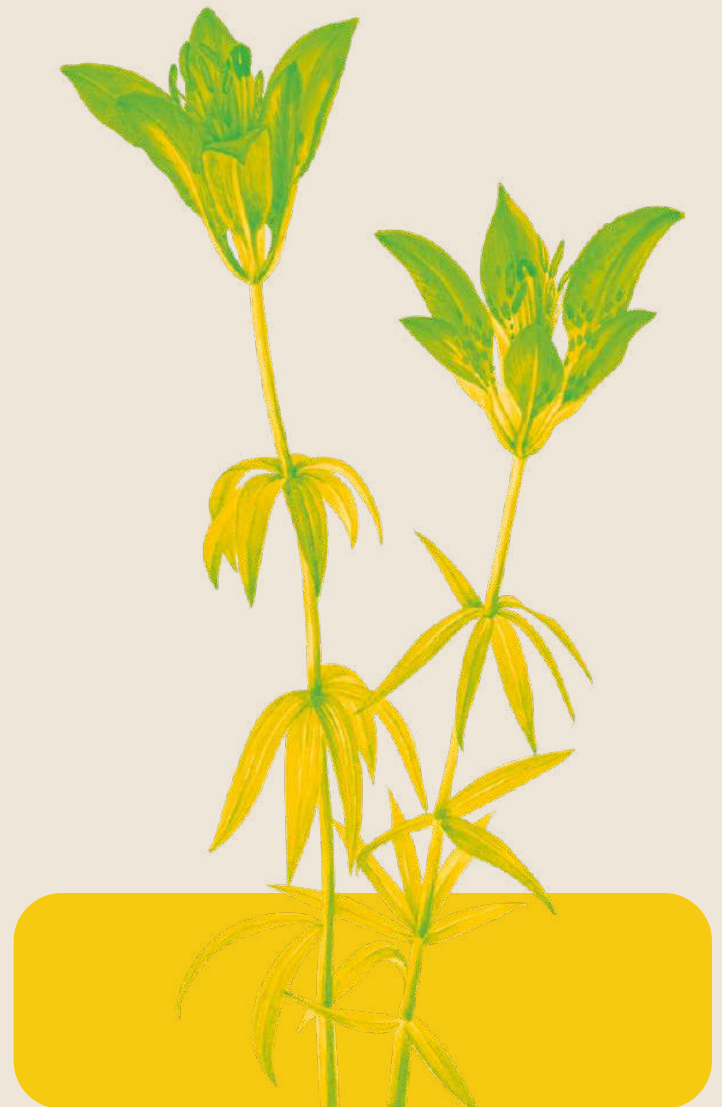
It is important to remember that as storytellers, our messages will ultimately spread and assume a life of their own. It is therefore crucial to come up with a strategic and unified message which can be spread by all stakeholders. Therefore, our story should not be about feedback loops, tipping points or other scientific concepts that are poorly understood by the public - but rather, one of hope, possibility and human agency.<sup>32</sup>

Many advocacy initiatives have begun to utilize storytelling as a tool for social change. Public narrative is one of them – a leadership development tool developed by Marshall Ganz that motivates others to take action for a shared purpose. It involves telling a story of self, us, and now – highlighting a challenge, choice, and outcome, while inviting others to connect over shared values and visions. Public narrative is not a script, but rather a process that links personal and collective narratives to build grassroots power by connecting stories to clear policy and campaign goals.<sup>242</sup>

Developing a public narrative involves composing and sharing personal stories and receiving feedback on challenges, choices and outcomes. They can be shared through various platforms, including social media and public events. Public narrative differs from storytelling in that it is a process that involves telling, listening, reflecting, and then retelling stories to make them more effective in actively engaging people.<sup>242</sup>

The power of stories lies not only in their ability to convey data in a relatable and engaging way,

but also in the emotional resonance they create. Through them, we can bridge the distance and dissonance people experience when they think about climate change – framing it not as an insurmountable threat, but rather as a challenge filled with opportunities. While statistics provide clarity, stories embed numbers in real-world context and help us humanize climate discourses. Our communication methods need to evolve with this knowledge to leverage the power of storytelling through imagery, games and visual entertainment. By crafting messages that resonate on an emotional level, we can inspire action through our shared connection to this planet we call home.



## 6.RE:IMAGINE

### 6.2 REVOLUTIONARY HOPE AND OPTIMISM

Hope is not just a communication strategy – it is a necessity to help us get up in the morning. Research shows that hope is essential for human wellbeing, and associated with lower levels of depression, chronic pain, and even cancer.<sup>243</sup> Hope is a powerful emotion, giving people a sense of agency as well as motivation to transform their fear into something more productive. In order to inspire people to take action on climate change, we have to demonstrate how our actions can make a difference. People are more likely to engage with an issue if they feel like they are not starting from scratch, but have a head start.<sup>32</sup>

“Another world is not only possible, she is on her way. On a quiet day, I can hear her breathing.”

-Arundhati Roy, author, *War Talk*

A meta-analysis of 46 studies<sup>244</sup> showed that generally, people who feel hopeful about climate change are more likely to engage in climate-related actions. But notably, when individuals felt hopeful about their own ability to make a difference, their engagement was significantly higher. In contrast, people who feel hopeful because they believe climate change isn't a serious issue tend to be less inclined to act. What these findings tell us is that while hope being a positive driver of climate action, it doesn't guarantee increased climate engagement. But when looking at links between emotions and climate activism, anger has been found to be a stronger predictor than hope in another study.<sup>245</sup> The science on this is rapidly evolving, but there are strong signs that hope-based framings – coupled with calls to action – are a more effective alternative to traditionally used fear framings.

“To inspire people, we need to tell a story not of sacrifice and deprivation but of opportunity and improvement in our lives, our health and our well-being—a story of humans flourishing in a post-fossil-fuel age.”

-Susan Joy Hassol, science communicator and Director of Climate Communication

The intricate interplay between anger, hope and action is highlighted in *Outreach and Optimism*, a podcast hosted by former executive secretary of the UN Framework Convention on Climate Change Christiana Figueres, covering the state of climate impacts and policy, where we're going wrong and what can be done to fix it. Christiana Figueres, who is a key figure in international climate negotiations, acknowledges the urgent need to address climate change, balanced by an understanding of the time that it takes to achieve policy and systemic shifts.<sup>246</sup> Central to her philosophy is "stubborn optimism," emphasizing that combating climate change isn't about sacrifices but rather a move towards a healthier, more sustainable lifestyle. Figueres believes in empowering individuals with the realization that they have the unprecedented capability to shape the future, leveraging technology, capital, and policy understanding – channeling both their outrage at the state of the world, and the knowledge that we can build a better future.





## VISIONS FOR A BETTER FUTURE

BY ANN-CHRISTINE DUHAIME

NEUROSURGEON AND AUTHOR, HARVARD MEDICAL SCHOOL

How can we incorporate hope into a climate change action strategy? This provides an additional challenge, as it requires sketching out an alternative future of a type not yet experienced in human history. In addition, as mentioned previously, just because of the rules of the physical world, the climate will get worse before it improves. This worsening almost certainly will be accompanied by widespread humanitarian crises, climate migration, suffering and mortality on a wide scale, affecting innocent people around the world but striking the least advantaged with the most force. How then to provide hope, to fuel confidence in necessary transitions and new priorities?

A vision of a better future will need to be constructed towards which people can and will want to work. This must be honest and speculative but fueled by knowledge and science as well as humanitarian and creative insights. It will need to be an iterative vision that is updated with ongoing knowledge and new scientific and cultural developments. Getting there will require sacrifice, and the sacrifice will need to be seen as “worth it”.

Over-promising for short term benefits and conflict-free “green visions” may backfire, as people become disillusioned as the world continues to worsen in its conflicts over scarce resources. Thus, painting a picture that highlights both the road ahead and what it will look like along the way, as well as the desired destination for a post-climate-change future, will be not only a communications challenge, but a challenge in integrity that will require the input of multiple disciplines working together will common resolve.

Research shows optimistic messages about progress in climate action increase hope, but can decrease risk perceptions of climate change. In climate change messaging, it is crucial to avoid ‘false hope’ or solely focusing on progress in climate change mitigation without a call to action. Instead, audiences should engage in constructive hope, driving the message that climate change can be mitigated through collective action.<sup>160</sup> Constructive hope has been positively connected to pro-environmental behavior, as it appeals to people’s self-efficacy - the notion that their actions make a tangible difference.

**RECOMMENDATION:** Therefore, it is important to communicate that progress on climate action has already been made and is, in fact, happening every day – while not downplaying the threat that climate change poses. Telling success stories of cleaner transportation, energy security through renewable energy, and thriving communities at the heart of those solutions can unlock massive potential and help accelerate the shift away from polluting industries. Most importantly, people need to know what they can actively do in their lives to help drive forward positive change.

## CLIMATE COMMUNICATIONS: FROM

BY KUMI NAIDOO

CLIMATE AND HUMAN RIGHTS ACTIVIST

“Pessimism is a luxury that we simply cannot afford. The window for action to mitigate the worst of runaway catastrophic climate change is small and closing fast, but there is still time for us to act, if we act decisively. In order to capitalize on this window, the climate movement needs to understand that one of the most powerful actions that we can do is to cultivate hope through action, and action through hope. Therefore, our climate communications must focus on encouraging, cultivating, and spreading hope. People need to know that there are multiple pathways to participation and that participation will be the greatest antidote in the fight against apathy and despair. The pessimism of our analysis of the current global situation can best be overcome by the optimism inspired by our creative participation.”

Communications expert Anat Shenker-Osorio argues that traditional progressive messaging suffers from an ‘ordering effect problem’: The pattern of “anger, hope, action”, she argues, is ineffective because people have other, more immediate problems to prioritize. Rather, messaging should follow the order of “shared value, problem, solution”. That first shared value should be universal and not alienate anyone, and follow up with a description of a specific issue (such as women’s rights, or the climate crisis). Shenker-Osorio suggests that policy and messaging need different approaches and that communicators should focus on the outcome, rather than the process of a policy – with an emphasis on improving people’s lives. In an [interview with Jonathan Stein](#), she says: “In the bleakest of times, we need to present the brightest dream”.

“Much of the reluctance to do what climate change requires comes from the assumption that it means trading abundance for austerity, and trading all our stuff and conveniences for less stuff, less convenience. But what if it meant giving up things we’re well rid of, from deadly emissions to nagging feelings of doom and complicity in destruction? What if the austerity is how we live now — and the abundance could be what is to come?”

-Rebecca Solnit, writer, in *The Washington Post*



The COVID-19 pandemic has caused people around the world to re-evaluate their priorities and the way they live their lives. The GoodLife 2030 report highlights that many are now seeking a stronger sense of interconnectedness with themselves, others, and nature – by looking for a slower pace of life with more purposeful work, and wanting to protect nature through living with fewer resources. These desires are

echoed in social media trends such as #SoftLife and Conscious Quitting – demonstrating a growing recognition of the importance of taking responsibility for our impact on the planet. To turn these visions into action, GoodLife 2030 recommends showing people tangible visions of a simpler but fulfilled life, and how to do more with less, helping people see themselves as agents of improvement.<sup>150</sup>

## WE NEED MORE CLIMATE OPTIMISM

BY MARCY FRANCK

SENIOR COMMUNICATIONS STRATEGIST AT HARVARD C-CHANGE

Being optimistic leads to hope, and hope inspires action. Some doctors even use hope as a therapeutic tool to help patients navigate a scary diagnosis because it helps us tackle seemingly insurmountable challenges. With climate change, we also need a constant reminder of the progress we're making to assure us that our efforts are working, that it's worth our energy to try, and to inspire more people to join us in tackling the greatest health challenge we face. That's why we started The Climate Optimist newsletter – to provide a monthly dose of good climate news to grow the climate movement. Our message is simple: A better future is not only possible; it's already underway. Without sugar coating the challenge, we highlight climate progress in its many forms, from policies to green innovations to clean energy projects breaking ground and the health benefits that follow. We also include a menu of options for becoming part of the solution.

The newsletter is a critical component of our Center's overarching approach to communications. By changing the climate narrative we can empower more people to act. These strategies include training health professionals to effectively translate their work, expanding news coverage, and increasing climate storytelling beyond traditional media to the entertainment industry and content creators.

Our readers regularly tell us that our newsletter helped them feel more hopeful and inspired to help. Our open and click-to-open rates hover around 38% and 10% respectively, compared to our email vendor's benchmarks of 26.6% and 10% for nonprofits. Click reports indicate that our audience tends to read the entire issue, and in the last year we saw a 92% increase in new subscribers.

Media outlets are increasingly covering our approach as essential for overcoming climate doom and for furthering progress. We've been featured in outlets like The Boston Globe, Christian Science Monitor, and Well+Good. Every climate communicator and journalist can help change the climate narrative by weaving solutions-based messaging into every piece they write about climate change.

Rebecca Solnit argues that in order to achieve a better future, a large-scale perspective change is needed – reimagining who we are, what we desire, and what “wealth” means to us.<sup>247</sup> Our current burning of fossil fuels makes us poorer by damaging our health, wellbeing and politics. Instead, we could pursue joy, beauty, community, and closeness to nature, rather than material goods. Many people are craving for connection, both interpersonally and ecologically<sup>150</sup> – what if we turned the climate crisis into an opportunity to achieve just that?

---

“Policies that empower everyone to lead their best lives are what people want. They are also necessary to change the economic fundamentals, so that companies and investors can deliver on the pledges and commitments that have been made at each of the COPs.”

**-Christiana Figueres, Flipping the Environmental Narrative, Project Syndicate**



## 6.RE:IMAGINE

### 6.3 CREATIVITY AS A FORCE FOR GOOD

The relationship between culture and climate is becoming increasingly critical. Historically, the creative industries have been significant drivers of consumption, and have often not acted sustainably.<sup>248</sup> Culture is an intrinsic part of sustainable development and can help us reach across identities, cultures, and borders.

Cultural and creative industries are an influential economic force, generating \$2,250 billion in global revenues and providing 29.5 million jobs worldwide – exceeding entire GDPs such as India’s. The industry plays a huge role in shaping cultural identity, and is driven by youth-led innovation.<sup>249</sup> But the industry also has a considerable environmental footprint – whether directly through their operations or indirectly through driving consumption – through resource-intensive practices and rapidly changing trends.<sup>250</sup>

But the creative sector can also drive visions of a sustainable future – both through technological progress like digital traceability, or acknowledging advertised emissions (see 7.3 and 7.4). Some major shifts have started to happen, including the growing number of PR firms refusing to work with fossil fuel companies & clients who deny human-caused climate change. But the broader creative sector – especially advertising agencies – are still falling short of aligning business and ethical priorities.<sup>251</sup>

Creative solutions are essential for addressing environmental and social challenges. Previously, climate protection was seen as a mostly technical issue concerning scientists and professionals in the sector. Today, the issue is a lot more people-centered – highlighting the need for a creative approach to climate communications, and for creative industries to develop a deeper understanding of sustainability.<sup>252</sup>



Figure 82: *The Hidden Relationship*, with Kit Harington and Rose Leslie.



Figure 86: Royal Opera House BP sponsorship protest via Telegraph

Media and creative industries play an important role not just in shaping public perception, but they can help disseminate knowledge on critical global issues like climate change – using the power of creativity to reach a wider audience. These industries have the potential to simplify complex climate science into compelling narratives, and depict future scenarios in a way that resonates with the public. Documentaries such as *An Inconvenient Truth* and series like *Our Planet* have already demonstrated the possibilities of visual media in raising climate awareness – now it is time to inspire widespread action through knowledge and empowerment, using communication principles of balancing urgency with solutions.

Creative sectors can employ art, music and literature to build emotional connections, making the abstract and distant aspects of climate change more immediate and relatable

through combining factual reporting with emotive storytelling.



## HOW CREATIVITY DRIVES PROGRESS

BY SIMON COOK

CEO OF LIONS AT CANNES LIONS

The initial public offering of planet earth on the Brazilian stock exchange. The reworking of classic works of art to reflect the realities of different climate scenarios. The digital backup of Tuvalu, a sinking island nation, to preserve sovereignty. These initiatives are all 2023 Lion-winning ideas from creatives who are using their superpowers to drive action around climate change.

The creative and branding industries come together at the Cannes Lions International Festival of Creativity in June every year. At the Festival, the Lions awards recognize the smartest initiatives that engage and influence consumers, alongside seminar content from the industry's finest talent designed to inspire their creative peers. But LIONS also offers learning, consultancy and subscription services to connect the creative community and showcase the very best creative and branding work all year round.

We recognize great work that is driving real progress – for people, business and society. We know that creativity has the power to drive change because we have seen evidence, through our Lion-winning work, that creativity can shift consumer behavior, redesign supply chains or reimagine the way products are manufactured or services are delivered. We've seen it in shortlisted and Lion-winning work for many years. And we're increasingly seeing work that inspires consumers to choose more sustainable brands or engage in more sustainable practices. This shift in behavior is driving real progress and business growth – and it is all underpinned by creativity. The volume of sustainability-focused work increased during the pandemic from 4% of all shortlisted and Lion-winning work in 2019 to 8.5% in 2023. This rise suggests that the pandemic gave the global creative community greater impetus to take action against climate change and other sustainable initiatives. Across most of the last 10 years, work that is related to sustainability has enjoyed a higher success rate in the Lions than the average for all work. When we look at the sustainability-related entries in 2023, 10.9% of them were subsequently shortlisted, outpacing the Cannes Lions 2023 Festival average of 10.3% – though 2.9% went on to win a Lion, dipping slightly below the Cannes Lions 2023 Festival average of 3.2% for the first time since 2017.

More broadly across the Festival, we saw entries linked to sustainability across all 30 of the Lions in 2023, with the Sustainable Development Goals (SDG) Lions accounting for 12% of these entries. The SDG Lions celebrate creative problem-solving, solutions or other initiatives that harness creativity and seek to have a positive impact on the world. Work needs to demonstrate how it contributed to or advanced the 2030 Agenda for Sustainable Development across people, planet, prosperity, peace and partnerships. Our SDG Jury was looking to recognize work that supported environmental and ethical ambitions but also delivered long-term business impact. It wanted to ensure that these initiatives could deliver growth so that they could maintain and sustain that positive change.

Lion-winning work is helping brands and agencies understand how to make a difference to the industries they serve and drive business growth – while at the same time driving progress for people and society. Our brand demonstrates the power of bringing together the very best creative minds to share and recognize impactful ideas that respond to sustainable challenges or create possibilities for the planet and people.

Influential musician and artist Brian Eno, emphasizes the potential of the creative sector in promoting climate action arguing that creative industries can communicate climate change messages more effectively through narratives, rather than raw data. But this potential often remains under-utilized in major climate discourses, including those coming from the Conference of the Parties (COP), or the Intergovernmental Panel on Climate Change (IPCC).<sup>253</sup>

Art has a significant influence on shaping societal values and behaviors, and merging the efforts of scientists and artists has the potential to influence understanding and attitudes around climate change. However, there’s a noticeable gap in addressing sustainability within creative industries themselves. To drive meaningful change, the creative sector must leverage its capacity to influence and inspire to tell compelling stories about sustainable futures and the challenges ahead,<sup>254</sup> as well as holding itself accountable.

### CLEAN CREATIVES: TRANSFORMING ADVERTISING AND PR

Clean Creatives, a movement of advertisers, PR professionals and their clients – advocates for agencies to stop working with fossil fuel clients. The group has also released a “Creator’s Pledge”, asking the wider influencer community to “decline any future contracts with fossil-fuel companies, trade associations, or front groups” – highlighting that the most significant source of pollution from agencies comes from their client work, especially when these clients are major fossil fuel corporations. As of September 2023, over 1,700 creatives and 688 agencies have signed up to the pledge. Following a DeSmog investigation which found that fossil fuel companies had been working with UK influencers to greenwash their image, Clean Creatives teamed up with Glimpse on a spoof campaign, urging creators to steer away from polluting companies.<sup>255</sup>







Figure 88: Spoof campaign mocking fossil fuel companies' recruitment of influencers, by Glimpse and Clean Creatives (2023)

In recent years, brands have started shifting towards engaging with social and environmental causes more proactively. This trend – often termed “brand activism” – reflects companies’ attempts to align with customers’ growing awareness of and demand for social justice, ethical practices and sustainability. But as brands engage more with activism, they are also confronted with accusations of greenwashing – a deceptive practice where a company exaggerates its sustainability credentials, or falsely claims to be environmentally friendly. Some notable examples include H&M’s “Conscious Collection”, which faced scrutiny for its sustainability claims against the backdrop of fast fashion’s overall environmental impact.<sup>256</sup> Similarly, in what became known as the “Dieselgate” scandal, Volkswagen falsely marketed their cars as low-emission vehicles<sup>257</sup> – a testament to the repercussions of misleading eco-friendly claims.



## THE RISE OF ARTIVISM

BY KUMI NAIDOO

CLIMATE AND HUMAN RIGHTS ACTIVIST

Many of us who have observed and participated in climate and social movements more broadly over the years have come to the difficult realization that we have not heeded Albert Einstein's words of wisdom when he said that "insanity is doing the same thing over and over again and expecting to get different results". We are currently facing the most consequential decade in human history and the current ways in which we are working are not delivering the results we need at the pace we need it.

It is becoming clearer that one of the key reasons we are not able to mobilize the level of urgency that the situation calls for is due to a communications environment that is not working in our favor. More specifically, mainstream media and social media are often stacked against messages that challenge the dominant status quo. However, even within these constraints activists and those seeking change more generally are doing their utmost to maximize the communications possibilities that are open to us.

An example of this communications challenge can be seen in how climate communications hasn't been framed in a people-centric way, but in scientific language which the majority of people in the world are not able to engage with. Far too often, activism attempts to win the argument by appealing to the mind through campaigns based on facts and figures – but neglects the heart, soul and body. This is a communications deficit that we need to address if we hope to win the struggle for our future and our children's future.

What we must realize is that arts and culture more broadly offer us a vital platform to bridge this communication divide and speak to people in ways that people communicate with each other and engage with the world. Art allows us to express ourselves, connect with each other and tell our stories in ways that can transcend barriers. Arts and culture can help create imaginable futures, change social norms and drive behavioral change through the way it meets, engages and invites people all over to change perspective. Our culture defines how we move and are seen in the world and influences our worldview, no less our politics. What we desperately need to do is bring arts and culture much closer to activism and harness its power for humanity's survival. This idea is increasingly being known as Artivism.



Authentic engagement with activism is no longer optional for brands, as consumers are becoming more discerning and knowledgeable. A number of brands have started living up to the challenge, & working to normalize active engagement with sustainability and grassroots efforts in their marketing strategy. A prime example is Patagonia, whose commitment to environmental causes is not just a marketing angle, but deeply embedded in the company's DNA.

From the "Don't Buy This Jacket" campaign urging customers to buy less new products and reduce waste, to their decision to donate 100% of Black Friday sales to grassroots environmental groups – Patagonia consistently puts activism at the forefront of its marketing efforts, helping normalize environmental advocacy. This strategy not only resonates with their customer base, but also sets a higher standard for corporate responsibility in the industry.

## HOW PATAGONIA REDEFINED CREATIVE MARKETING

BY TYLER LAMOTTE

MARKETING DIRECTOR AT PATAGONIA

Patagonia was recognized with the prestigious Cannes LionHeart Award in 2023 for our efforts in combating environmental challenges. This recognition is a testament to our commitment to making a positive difference in the world since our founding by Yvon Chouinard in 1973.

The success of Patagonia isn't solely due to our outstanding products, but also our unwavering commitment to sustainability. Our company's mission focuses on purpose over profit, proving that these two can coexist harmoniously. We challenge the culture of disposable fashion, encouraging our customers to make mindful choices and invest in durable, long-lasting products. This ethos promotes conscious consumerism and transcends fleeting trends.

We are not just a company selling outdoor clothing and gear. Patagonia is a community and a movement. We use our brand as a platform to advocate for environmental causes and engage individuals in taking action. We understand that addressing environmental crises requires collective effort and community engagement, and we strive to inspire exactly that.

Our marketing strategies revolve around environmental activism and authenticity – we tell compelling stories that connect with consumers on a deeper, emotional level. By sharing narratives that highlight our values, mission, and the impact we're making in the world, we create an emotional bond with our customers. Our initiatives, such as the repair program where customers can send in their worn-out products instead of discarding them, foster customer loyalty and satisfaction, all while reducing waste.

We also actively engage with our community through various initiatives, like encouraging customers to share their experiences using the hashtag #MyPatagonia on social media. User-generated content creates a sense of community and authenticity around our brand, and we regularly feature these customer stories on our website and social media channels.

As Patagonia's European marketing director once said, "Focusing on quality in whatever we do means quality in the way we take care of our people and our customers." This statement encompasses our commitment to quality in everything we do – whether that's in our products, advocating for the causes we believe in, or in our mission of protecting the planet.

Traditional marketing tactics don't take center stage at Patagonia – instead, we focus on long-term success and aspects such as reputation, credibility, and purpose. We believe that the most responsible thing we can do as a company is to make high-quality gear that lasts for years and can be repaired, reducing the need for constant replacements.

As we celebrate 50 years, our ongoing What's Next campaign is centered around simplicity, being human-powered, and resilience. It's a reminder that without a healthy environment, there are no shareholders, no employees, no customers, and ultimately, no business. We stand as proof that profitability and making a difference are not mutually exclusive but can be intertwined pillars of success in this era of conscious consumption.

Over the past decade, climate-conscious creative campaigners have been making significant strides in their efforts to challenge the fossil fuel industry's influence on culture and the arts, ending a number of high-profile fossil fuel sponsorships around the world. For example, the American Museum of Natural

History, the Van Gogh Museum in Amsterdam, and most cultural institutions in the UK, including the Royal Opera House, National Portrait Gallery, British Film Institute, National Theatre and the Royal Shakespeare Company, have all cut ties with fossil fuel sponsors.



Figure 83: The Art Not Oil coalition of artists and activists gathers in the British Museum's Great Court to send a message to oil sponsored institutions. Photo by Anna Branthwaite.

The recent years have seen a groundswell of grassroots initiatives that are taking on the fossil fuel industry's influence in culture and the arts. These networks, such as Creatives for Climate, Conscious Advertising, Clean Creatives, Purpose Disruptors and Comms Declare, are using creative and visual protest alongside strategic advocacy and research to end fossil fuel sponsorships in cultural institutions and drive climate protection within the industry.

sever ties with fossil fuel companies since 2016.<sup>258</sup> In 2019, the Royal Shakespeare Company ended its sponsorship deal with British Petroleum (BP) earlier than expected following activist pressure.<sup>259</sup> One of the movement's most significant victories came in 2023, when the British Museum also decided to end its association with BP.<sup>260</sup> These wins highlight a broader cultural move away from fossil fuel affiliations amid escalating climate impacts.



Figure 87: Creative protest against BP's sponsorship of Scottish Ballet. Photo by Guy Reece.

Culture Unstained and the activist theater group BP or not BP? have spearheaded a successful campaign against fossil fuel sponsorships in the UK's cultural sector. Through imaginative protests and performances, they have pressured major institutions – including the Tate, Royal Shakespeare Company, Royal Opera House, and the Science Museum – to



## HOW CREATIVES ARE DRIVING CLIMATE ACTION

BY LUCY VON STURMER

CREATIVES FOR CLIMATE INITIATOR

[Creatives for Climate](#) is a nonprofit global network of creative professionals dedicated to climate justice. We are 20,000-people strong across channels, 2000 on our closed collaboration hub, and spread across 40 countries. From designers, to copywriters, to ethical agencies, we are united in mobilizing the power of creativity to fuel climate action. We drive change across the following three key program areas are:

- **COMMUNITY:** We empower professionals to become change agents through our global community platform and media channels
- **INDUSTRY ACTION:** We drive industry action by incentivizing and supporting ethical agencies that commit to action and running training programs
- **AMPLIFICATION:** We help climate organizations make impact by finding the right creative support to amplify their cause.

Across all of our activities, we are building a movement to transition the power of storytelling towards just and regenerative futures. If you're asking: How can I break free from business-as-usual? How can I make a positive impact in my workplace? How can I design a career and a life that is aligned with my values?

We bridge the gap. We have proudly launched the first and largest online global platform for creative professionals to share knowledge, tools, and new ideas to drive climate action. Building on three years as a network for professionals, we are scaling our impact across the industry - while also enhancing the support we are able to provide for solutions.

We are building an ethical agency alliance of front-runners walking the talk on climate action. To join, we are calling on agencies to commit three out of every 10 employees to our pathway for change to become certified. The pathway calls for walking the talk on collaboration, empowering staff to upskill, and pledging to divest from representing fossil fuel clients.

The pathway responds to a rise in greenwashing, a need for industry collaboration to drive change, and an awareness that the communications industries have been complicit in building legitimacy for the world's largest polluters. Namely, fossil fuel clients... who contribute to approximately 75% of global carbon pollution.<sup>261</sup>

At the same time, we are expanding our support for climate organizations - as through community building, and industry engagement, we are building a groundswell of change, and also - a network of support. We now have the world's leading network of creative talent backed by the best frontrunning ethical agencies, and we are seeking to expand our support to climate solutions in the following ways:

- Free direct access to the network to post calls for skills or support for campaigns.
- Partnerships to create bespoke campaigns to reach our 20,000 network across our channels.
- Matching the needs of climate organizations with agencies directly in the network.

Looking back at how we started in May 2019, it was a letter from Extinction Rebellion who published an open letter<sup>262</sup> calling on advertisers to tell the truth that put our community into motion. It read “Advertising will increasingly be seen alongside oil and logging as obviously toxic industries and those with the job title ‘creatives’ will soon find themselves rebranded as ‘destroyers’.”

This rallying cry urging the ad industry to use its power for good was the kick-start for our formation, and remains to this day.

While there is no universal definition for creativity, its role in problem-solving – particularly in economic, social, and sustainable development contexts, is undeniable. This recognition prompted the United Nations to designate April 21 as [World Creativity and Innovation Day](#) – rooted in the understanding that art in its myriad forms served as a powerful medium to amplify environmental issues, while also motivating individuals to take action.



Figure 90: Apple's Status Report on environmental progress for Mother Nature.  
Source: Apple UK

Historically, art has been a powerful voice during social and environmental crises, empowering individuals to challenge prevailing norms, raise awareness, and offer alternative and transformative narratives. One case in point is the “Flood Wall Street” protest, where artists symbolically used blue paint to draw attention to rising sea levels.<sup>263</sup> Art also offers a medium to process existential challenges like the climate crisis emotionally, helping to overcome anxiety and channel difficult feelings into engagement and action.

Art can also help provide a platform for communities which have been historically excluded from climate conversations, and highlight the importance of equity in climate solutions. Through art, we can seamlessly connect the relationship between culture and sustainability – Indigenous art, for example, illustrates sustainable practices and our interconnectedness with all life, while contemporary artists in urban settings highlight the balance between sustainability and societal change.<sup>263</sup>



Figure 90: Climate action through Creativity. Source: Penn Johnson, Inhabitat.





### **THE FIRST DIGITAL NATION: THE GOVERNMENT OF TUVALU AND THE MONKEYS, PART OF ACCENTURE SONG SYDNEY**

The South Pacific Island of Tuvalu is likely to become uninhabitable by 2050 thanks to the devastating effects of climate change: rising sea levels will mean the entire country will be submerged. Working with Sydney-based agency The Monkeys, the Government of Tuvalu devised a way for the country to exist as a nation even when it no longer has actual land.

Tuvalu will become the world's first digital nation, ensuring its sovereignty and ability to govern in the face of a worst-case scenario. This digital transformation process will allow Tuvalu to retain its identity and continue to function even after its physical land is gone. The first step in this process is the digitization and recording of Tuvalu's land mass, which will serve as a crucial component in its legal fight for a revised definition of territorial sovereignty under international law. This Titanium Lions Grand Prix winner is not just an announcement of a tragic climate adaptation strategy. It is also a powerful provocation for global action, which has already led to landmark climate agreements.



*Figure 90: Titanium Grand Prix // Cannes Lions 2023 - Government of Tuvalu - The First Digital Nation, Credit: Accenture Song, in YouTube.*

Collaboration and continued commitment have been vital. Tara Ford, Chief Creative Officer of The Monkeys, comments: “This wasn’t just the work of an agency group; it was sustainability experts, ministers from the Tuvalu government. It’s an ongoing initiative... this process of co-creation with the Tuvaluan people will keep going.”



Figure 91: Rising sea levels force Tuvalu to move to the Metaverse: COP27 speech, by Simon Kofe (in YouTube).

In an article published by the Guardian, twelve industry experts shared their guidance for inspiring climate action through the power of creativity,<sup>264</sup> including:

- **Promote Creation Over Consumption:** Building an emotional bond with the environment is essential. By focusing on creating rich experiences rather than just disseminating information, we can inspire individuals to prioritize the planet. It's about valuing the act of creating over mere consumption.
- **Use Media to Influence Opinion:** The media holds tremendous sway in shaping public opinion. By actively involving artists, cartoonists, and journalists to spotlight climate issues, we can have an impact on public discourse.
- **Encourage Human Empathy:** Connecting on a personal level is key. By sharing heartfelt stories of those affected by climate change, we can foster a sense of global interconnectedness and unity, reminding us that the issue isn't distant but deeply personal.
- **Leverage Primetime Power:** High-profile celebrities and events have the reach to amplify the climate change message. Harnessing this influence can make environmental concerns resonate with broader audiences, both public and corporate.
- **Lead by Example:** The arts community can be a beacon of sustainable practice. By partnering with policymakers and funders, we can ingrain sustainability into the fabric of the creative sector, inspiring others to follow suit.
- **Stay Hopeful and Forward-looking:** While the challenges we face are immense, the creative community thrives on the belief that solutions are within grasp. Art can be a source of inspiration, reminding us of the boundless possibilities ahead.
- **Limit Fossil Fuel Influence in Cultural Spaces:** Cultural institutions, like museums, must be safeguarded from fossil fuel corporations. By raising awareness of these companies' historically negative impacts on climate action, we can pave the way for more informed public discourse.

- **Provide Tangible Solutions:** Merely acknowledging the climate crisis isn't enough. We must move beyond problem recognition and actively present actionable solutions, serving as guideposts for those keen to make a difference.
- **Target Young Audiences:** Nurturing environmental consciousness from a young age is vital. By using children's content that empowers them, we can inspire the next generation to be stewards of the planet.
- **Ensure Distinct Messaging:** In today's content-saturated world, climate messages must stand out. Crafting impactful, unique narratives that not only resonate but also incite action is crucial.
- **Use Real-Life Stories for Impact:** Authentic storytelling has unparalleled power. Grounding fictional narratives in real-world situations amplifies their urgency, reminding audiences that the effects of climate change are not just probable, but inevitable unless we act now.

## HARNESSING THE POWER OF CREATIVITY TO MAKE A POSITIVE DIFFERENCE

BY DONAL KEENAN

AWARDS DIRECTOR AT D&AD IMPACT

At D&AD we believe that we all have a responsibility to drive and accelerate change to help revert the damage done to our planet. The commercial creative industries, and the people within them, are arguably the best equipped to influence positive change in brand and consumer behavior to respond to the climate crisis. We are therefore harnessing the power of creative communication, storytelling, and design thinking to raise awareness and change behavior through our [Awards](#) and education programs.

In 2011 we launched the White Pencil to recognize work by the creative industry already making a positive difference. Over the years, the White Pencil gained traction as the ultimate award for creativity that's solving real-world problems, and in 2016 it evolved into [D&AD Impact](#), with expanded categories based on the 17 UN Sustainability Goals. Many Impact winners over the years have demonstrated creativity's problem-solving power, in particular in response to the climate crisis, with notable campaigns including [Trash Isles](#), [Brewtroleum](#), [The Organic Effect](#), and [Edible Six Pack Rings](#).

To encourage the creative industries to continue innovating, we have D&AD Future Impact, rewarding early-stage designs and initiatives that offer creative solutions to contemporary problems. 'Impacters' on the program get access to 12-months of mentoring, peer support, training, and visibility. They can also apply for grants from the Impact Fund.

We are proud that D&AD Impact, since its creation, has helped promote positive change in our society and bring great ideas to life. But we aren't stopping there. As responding to the climate crisis has become alarmingly urgent, we are now factoring sustainability considerations into other areas of the Awards, including the Product and Packaging Design

categories. Through our Masterclasses program, creatives take our free on-demand online course, [Creativity as a Catalyst for Change](#), to learn how to turn their purpose and intention into real-life action. And our [Annual](#) is a free resource offering insights into how this year's winning work was made, including comments from Judges and other industry voices on issues of sustainability, creative excellence and more.

It's so important to recognize that creativity can help address many of the issues we face today, but even more important to lead the way as an industry.

The tools of communication, marketing and storytelling will be instrumental in advancing sustainability efforts. While they have been historically used to drive consumption, their superpowers can be used to create compelling, relatable narratives that inspire pro-environmental action. The digital age has further amplified the reach of communication tools: Platforms like Instagram and TikTok resonate particularly with younger audiences, and can be used as channels to promote climate action ([see 5.3](#)). While the digital landscape also comes with the pitfalls of greenwashing – highlighting the need for transparency and authenticity ([see 2.2 and 7.2](#)) – it will be key in mobilizing the next generation of climate leaders.<sup>263</sup>

Recent years have seen a fascinating intersection between art and technology in the area of green tech. Through innovative applications of materials and techniques, artists are spearheading groundbreaking climate solutions – from Dutch artist Daan Rosengarde's "Smog Free Towers", combining functionality with aesthetics, to the field of biomimicry, which looks

towards nature for sustainable innovation inspiration. There is a near-limitless potential for blending art, creativity, and technology – painting an optimistic picture of a sustainable future.<sup>263</sup>



## CASE STUDY: COORS LIGHT AND DROGA5'S PLASTIC-FREE 'FUTURE MART' IN NYC

Coors Light demonstrated their commitment to sustainability by transforming a 535-square-foot pop-up store into a plastic-free "Future Mart" in Brooklyn's Greenpoint. Constructed entirely from sustainable materials like steel, aluminum, plywood and brewery waste, the store attracted over a thousand visitors during its week-long run, courtesy of creative agency Droga5.

This eco-friendly store featured biodegradable infrastructure and unique merch such as beer-infused soap and Coorsatelli pasta, creating an engaging atmosphere for customers to learn about Coors Light's decision to remove all plastic rings from its global packaging by 2025. Locally sourced materials minimized the event's carbon footprint, and the store encouraged visitors to reassess their relationship with plastic.<sup>265</sup>



Figure 86: Coors Light and Droga5's Plastic-Free 'Future Mart' in NYC.

Cities are pivotal hubs for innovation due to their concentration of stakeholders and the rich interplay of culture and multidisciplinary professionals. According to research by the European Commission, both large metropolitan areas and smaller cities provide opportunities for creative sustainability efforts – benefiting massively from initiatives such as citizen participation in shaping urban strategies. Conversely, leverag

ing new technologies can amplify citizen involvement – balancing creative innovation with social engagement can therefore help supercharge cities' full potential in driving societal change.<sup>266</sup>

Collaboration is a critical component in driving creativity for transformative climate action. Both within and between organizations and

industries, the synergy between cross-disciplinary efforts hold revolutionary potential. The creative industries are key in this – we must use their superpowers to bring science communication into the mainstream to unlock

the changes we need to see. When visionaries, creatives and activists unite, we can go beyond a awareness-raising and inspire active engagement for a more sustainable future.

## IT STARTS WITH A GREAT IDEA

BY JUAN CARLOS GOMEZ DE LA TORRE

FOUNDER OF IMPOSSIBLE THE DREAM FACTORY

Creativity allows us to create extraordinary solutions to problems, no matter how complex they may seem. It is about finding the most impactful, clear and convincing idea that makes people see what is happening and what we have to do to solve it. The best creatives and communicators are sensitive and committed people. You have to find talent that has a deep understanding of human behavior, and the spark to connect, to get people to act.

My advice is to select each member very well to form a "Dream Team" and trust in her talent. On the side of the advertiser that approves the ideas, there must be a group of no more than 4 people with a final decision maker who is involved from the beginning throughout the development of the project. Publicists and media can unite to educate the public on climate issues. My advice is to create a hot proposal. Something provocative like "Save the world for real".

We can touch people's hearts and minds by refreshing our communication, and not repeating the same chant: "Look at all the disasters around us, the world is going to end". People react by thinking, "This is too much, I can't fix it." Or the opposite: "They are exaggerating, when I go out into the street all I hear is birdsong. Nothing is happening".

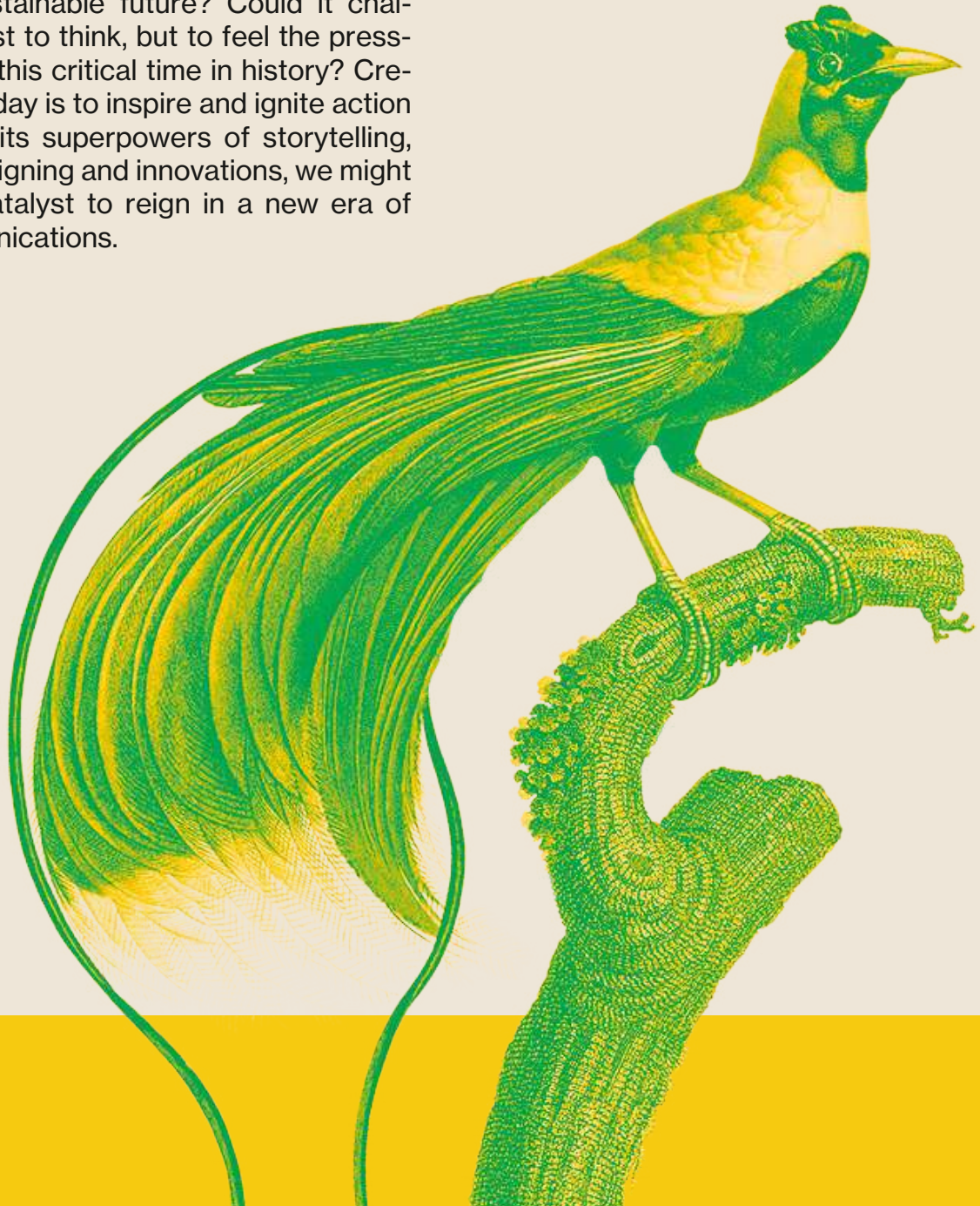
Our main focus should be to achieve maximum visibility, relevance, vitality and memorability of the message. You have to start from there. We must move from speech to action, and mobilize a global offensive against climate change that belongs to the people. & we need a committed face of the movement that has the ability to articulate our message, like a celebrity.

Advertising and creativity influence the future of the world. All memorable publicity is made up of radical and surprising acts of communication. Nothing beats a great idea.

To bring a wide section of the population on board with sustainability, it's imperative to acknowledge and utilize the role of art and creativity in driving climate action. Creative industries have a history of driving excessive con-

sumption, but also hold the power to influence individual behaviors, societal values and collective action. It is now down to those industries to take responsibility and use their superpowers to channel their creativity for the common good.

**RECOMMENDATION:** To transform climate communications, we need to prioritize leveraging creative industries' vast reach. In doing so, authenticity is crucial – we need to prioritize eliminating greenwashing alongside communicating climate issues in an accessible way. Creative industries are now at a crossroads – they hold the tools to shape our future, be it a continuation of the status quo or a transformative path to a better world. If art has always held a mirror to society, could it not now reflect a vision of a sustainable future? Could it challenge us not just to think, but to feel the pressing urgency of this critical time in history? Creativity's task today is to inspire and ignite action – and amidst its superpowers of storytelling, creative campaigning and innovations, we might just find the catalyst to reign in a new era of climate communications.



## 6.RE:IMAGINE

### 6.4 CLIMATE LITERACY AND EDUCATION

The urgent need for comprehensive climate education is everywhere – starting in schools, to universities all the way to the workplace and government. Climate literacy is essential – not just for understanding the science behind climate change, but also for understanding its social and economic implications. But until this day, many key groups and nations remain underrepresented in climate education initiatives, resulting in large populations being inadequately informed about the issue. This is despite the United Nations stressing that education is an essential tool in addressing climate change, and the UNFCCC mandating its Parties to undertake educational campaigns and ensure public participation and access to climate change information.<sup>267</sup>

However, our educational systems often fail to incorporate climate topics – a gap that extends to both the corporate and governmental sectors. Even though there's a strong push for including climate education in schools, progress has been slow. Some states and institutions have taken the lead, but there's still a long way to go.



#### Education can:



Change people's attitudes and behavior towards climate change.



Equip individuals to make informed decisions about climate.



Teach young people about global warming's impact and adaptation strategies.



Alleviate fears and misconceptions about climate change by providing factual information.

Figure 91: Rising sea levels force Tuvalu to move to the Metaverse: COP27 speech, by Simon Kofe (in YouTube).



## YOUNG PEOPLE ARE THE FUTURE

BY SOPHIA KIANNI

FOUNDER OF CLIMATE CARDINALS

Young people have changed the movement and the face of climate change. Not just that, but we've changed the world. In 2019, we had over six million people go out into the streets to strike for climate action. How can we continue this incredible momentum that has been brought about by young women like Greta Thunberg or Vanessa Nakate? How can we continue to make people understand just how urgent the situation we're in is? How dramatically and immediately we need climate policies to be implemented?

That's where I decided to start Climate Cardinals, when I was a senior in high school. We are a youth-led climate education nonprofit that has now grown to over 10,000 student volunteers across 80 countries, with an average age of 16. We've been able to translate over a million words of climate resources into over a hundred languages, realizing that the people who are worst impacted by the climate crisis often lack the resources and opportunities to get involved due to a lack of material available in their native language.

Young people are the future of this movement. There's never been a time in history when a young person could go on the Internet and have hundreds of thousands, millions of people hear their concerns. Social media has been a game-changer in this conversation. But together with that, we need effective climate communication. We need people who can help to mobilize the masses. We also need intergenerational dialogue between young people and older generations, bridging that gap and learning from each other to present as a united front.

There has never been a better time to step up for Gen Z. Our generation is going to be disproportionately impacted by climate change, if action is not taken. We are already experiencing twice as many climate change-induced weather disasters as our grandparents, and it's continuing to get worse. 83% of Gen Z-ers are concerned about the planet's health, and eco-anxiety is on the rise.

We need to lead with the narrative of hope. We do have the solutions we need. What we're missing is political and corporate will and action. We need to utilize our collective power, our strength as marketers and as communicators, to get people to understand what we need is systems change. We need collective action so that we can build the better future that everyone, especially young people, deserve.

Climate literacy is a vital aspect of addressing climate change, yet there is an unequal distribution of engagement efforts worldwide. Citizens from poorer regions – which often disproportionately experience climate impacts – often

express concern but lack in-depth knowledge.<sup>144</sup> Educational attainment plays a key role in climate change awareness depending on the region, but to date most research has been concentrated in a select few nations like the UK,

North America, and Australia. Public engagement initiatives are lacking in crucial countries like China, Russia and Turkey, despite their importance in achieving the 1.5 target.<sup>31</sup>

According to a 2022 survey, 45% of people say it is almost impossible to find climate change information they can easily understand. Climate change is not an official part of the curriculum in most public high schools, meaning that a lot of people have limited understanding of the science of how our planet works.

This includes heads of corporations and government officials, who now must come up with ambitious policies for both climate and nature.<sup>6</sup> Research shows that most registered voters think that schools should teach children about the causes, consequences and potential solutions to climate change – an agreement that spans across the political spectrum.<sup>217</sup> Students tend to be more open to changing their opinions, making educational institutions ideal targets for climate engagement.<sup>268</sup>

## DRIVING CLIMATE LITERACY THROUGH DIGITAL TECHNOLOGY

BY SWETA CHAKRABORTY

RISK & BEHAVIORAL SCIENTIST AND CEO OF WE DON'T HAVE TIME

It's been made clear that communicating solutions is the key to mobilizing society to reach our climate goals. We Don't Have Time is a tool to this end. It is the world's largest social media platform for climate solutions. The We Don't Have Time app incorporates behavioral science in every aspect of communication and outreach to support widespread behavioral outcomes that align to climate science.

The app connects companies, communities, scientists, policymakers, advocates, journalists – everyone who wants to solve the climate crisis. Through targeted, thoughtful content sharing, audiences receive climate solutions messaging that is not only relevant, but that resonates cognitively, allowing more predictable behavioral outcomes – i.e., proactive actions towards individual and local alignment to climate realities and solutions.

The app not only supports individual actions of more than 120,000 monthly active users from 160 countries, but its messaging also reaches 190 million viewers per month. The democratization of access to relevant climate information – climate impacts as well as avenues to safeguarding oneself, one's family, community, and beyond – presented through different trusted spokespeople for different communities has been unjustly missing. Establishing a baseline avenue for communicating relevant climate information is a foundation for then sharing climate ideas and scaling evidence-based climate solutions to communities around the world. Conversations start on the WDHT platform and continue to reverberate through social media. Viewers may consume WDHT content from Twitter, LinkedIn, Spotify or other social and traditional media outlets. Understanding where consumers view and act on content produced and/or amplified through We Don't Have Time allows the app to target viewers based on data and consistently improve numbers of users and monthly reach.

We Don't Have Time's both for and non-profit partners are able to share ideas, solutions and call to actions through the app. The integration of behavioral science into the platform allows for the measurement of conversion from viewership to action. This measurable behavioral impact is critical to showcase the power of strategic, targeted communication as a change agent.

We Don't Have Time reaches all actors aiming to align behavior and policy to the realities of the climate crisis. Reaching various publics and ideally mobilizing support for proactive, climate-forward policies can help policymakers see through the implementation of evidence-based legislation. Reversely, supporting the amplification of voices from historically marginalized populations like Indigenous peoples, women, and youth can also support the development of policies entrenched in just and equal outcomes for all global citizens.

It's not just enough to educate children and young people about environmental issues – timing matters, too. In *Beyond Ecophobia*, environmental educator David Sobel emphasizes the importance of building a deep emotional connection between children and the natural world before introducing them to environmental problems and crises. Sobel argues that exposing young children to distressing global issues before they are ready can lead to fear, dissociation, and a sense of helplessness, rather than empowering them to make positive changes. He advocates for an educational approach that begins with nurturing an appreciation for local flora and fauna – allowing children to explore, play, and fall in love with the natural world. This bond lays a solid foundation for introducing more complex ecological concepts later in their education journey, equipping them to become active stewards of the world.

Educational psychology research highlights the importance of fostering a sense of collective efficacy and engaging students in practical actions, internships with advocacy organizations and incorporating civic engagement exercises in the classroom. These can create opportunities for active participation, reinforcing students' confidence in their ability to enact change even in the face of complex problems. Despite the very real danger of the climate crisis, it's crucial to balance the "doom and gloom" narrative with optimism and active engagement.<sup>269</sup>



## MAKING CLIMATE EDUCATION LAW

BY SCARLETT WESTBROOK

YOUNGEST POLICY WRITER IN THE UK

“In 2019, I joined hundreds of students across the world in organizing school climate strikes. In the UK, our protests had four central demands: save the future, teach the future, tell the future and empower the future. We received unprecedented support from the public and the politicians we lobbied of the second ask in particular - teach the future, a demand to reform the education system to incorporate climate education into every aspect of the education system so that the next generation of workers have all of the knowledge, skills and resources necessary to build a resilient, climate just society. Our education system isn't preparing young people for the future we inherit despite that being its central purpose, through having essentially zero mention of climate.

Many will live to see the end of this century – and the full effects of climate inaction. But our education system is failing to prepare young people for this future. Whilst we're told to list the benefits of climate change in geography lessons, we're not once taught about the historical events and political systems that catalyzed the climate crisis, the social and economic repercussions that this catastrophe will induce, or what constitutes the possible solutions. Consequently, we're not equipped with the skills we need to live and work in a world increasingly impacted by the climate crisis and are denied information on the climate that isn't confined to small sections in science GCSEs or optional subjects like horticulture and environmental science, which few institutions have the financial capacity to host.

### With this in mind, it's no surprise that



**70%**  
**Teacher**

reported no mention of the climate in their training qualifications, whilst only



**4%**  
**Students**

said that they knew a lot about the climate crisis. It's clear that students aren't adequately prepared for the workforce they'll inherit, and teachers aren't equipped to deliver this vital education.

Figure 92: Inclusion of climate in training qualifications of teachers and in students' curricula.

This cannot continue. So, alongside some of my other climate striker friends, I set up Teach the Future - a student-led campaign to reform the education system through a parliamentary Bill, the Climate Education Bill. We need to ensure climate education is no longer exclusive to those who take optional subjects or briefly glazed over, but instead centered in all subjects. The climate crisis will affect everyone, whether they are a builder or a banker, a carer or a pharmacist.

This means that climate education must be intertwined into every subject in a way that is accessible to all. Climate education needs to be extended to include knowledge about how to stop and abate the climate emergency and ecological crisis, deliver climate justice and provide support for students to deal with eco and climate anxiety – something which climate education will also mitigate, as students will be empowered with the information needed to tackle the issue. We also need to be taught about and prepared to adapt to our changing world. The climate crisis is already here. Our education system needs to stop treating this disaster as a hypothetical future and instead ensure we are ready for what is an inevitable reality.

To achieve all of this, we must reform teacher training qualifications to prepare teachers to educate their students on the climate crisis and its interdependence with their subjects. Whether that's introducing climate apprenticeships in the renewable energy sector, expanding vocational courses so that they cover sustainability, or changing academic content to give us a realistic idea of our world and subjects in their climate-impacted contexts.

By doing so, we can create thousands of green jobs and set a precedent for the rest of the world, while also saving the costs of tackling extreme climate breakdown further down the line. The government's plans arguably depend on it. If the government is serious about getting to Net Zero, it needs the workforce to do it. For all the government's talk about the importance of skills-based education, it is missing a trick by failing to train the next generation who will be essential to the transition to a low-carbon economy.

Our Climate Education Bill in the United Kingdom would implement all of this and more to ensure that we truly teach the future. This Bill has made me the youngest parliamentary policy writer in history, as it is the first time that a teenager has put forward a Bill; I was just 15 when we put forward our first draft. It was first tabled in 2021 but fell as the Parliamentary session finished before it could make its way through the necessary stages to become law, and is currently awaiting its second reading in Spring 2023 after being retabled this January.

Through Teach the Future, we are bringing youth climate strikers to the corridors of power, so MPs can come face to face with the next generation fighting to save our planet. Young people want to be part of the solution to the climate crisis. What we need are the skills and knowledge to do so. Our demands are simple: teach us the truth, prepare us for the future."

Recently, Connecticut and Rhode Island have become the first US states to introduce mandatory climate education.<sup>270</sup> Over in Europe, Barcelona University is introducing a mandatory climate emergency module for all of its students after a number of sit-in protests.<sup>271</sup> But we are moving too slow: given the substantial body of research showing how climate change affects young people’s wellbeing, alongside the urgent need to decarbonize, we are in need of nationalized education programs on climate science, climate change, climate impact, and climate justice – conveying a holistic view of the challenge we’re facing, as well as the solutions we need to tackle it.

In response to the challenge, a number of climate initiatives have been gaining momentum: [The Carbon Literacy Project](#) covers the essentials of climate change, carbon footprints,

and individual responsibilities in a day’s worth of Carbon Literacy training, targeting diverse audiences from everyday citizens to professionals and students. Recognized at COP21 by the UN as one of the 100 global Transformative Action Programs, its impact is accompanied by a growing range of Carbon Literacy Toolkits – comprising off-the-shelf courses tailored to different sectors and audiences.

[Climate Fresk](#) is another project which has proven impactful in making climate education more accessible. Initially launched in France, Climate Fresk’s activities now span over 40 countries. Its reach has been growing at a remarkable pace, doubling workshop participants every five months. These initiatives are paving the way towards a more climate-literate society – but they should be the norm, rather than the exception.



Figure X: Children learning about solar panels, Reno, Nevada. Credit: Jessica Reeder / BlackRockSolar

## LANGUAGE MATTERS

BY CHRIS DUNCAN

HEAD OF COMMUNICATIONS AT CLIENT EARTH

“The use of advertising and PR to make products, companies and brands appear less damaging to the planet than they actually are has been with us for decades. But with the huge increase in consumer awareness of climate change, we’ve seen an explosion in greenwashing.

When it comes to making claims about green credentials, the way that language is used matters, or more specifically the way language is misused matters. Let’s take the way that some energy companies communicate about gas, as an example.

First of all, you’ll hear gas described as ‘the cleanest-burning’ fossil fuel. While gas may produce less CO<sub>2</sub> than oil or coal when it is actually burnt, extracting, transporting and storing gas also leaks methane, a powerful greenhouse gas. In reality, the overall climate impact of gas can be worse than coal, the dirtiest fossil fuel.

But putting methane aside, calling gas ‘the cleanest-burning’ fossil fuel or a ‘low-carbon’ fossil fuel is misleading. I’ve seen examples of energy companies claiming that 50% of its energy will be in the form of ‘low-carbon’ electricity, a fine thing. But if you dig really hard into the numbers, you’ll see that number includes ‘low-carbon’ electricity produced by... burning gas. This is the same tactic used by the tobacco companies when they marketed cigarette brands as ‘low-tar’ or ‘light’, a practice now outlawed in the US and EU. Whatever the tar content, smoking cigarettes causes cancer. And whatever words you use to describe it, burning gas is driving climate change.

But it’s not just the marketing of fossil fuels where we see language used to misdirect. Companies across the world have made Net Zero pledges, which is a fantastic development. But when you read the language that goes alongside some of these claims, they can seem slightly less convincing. A favorite of the oil industry is to say that they will reach Net Zero but only “in step with society”. This is a huge caveat, particularly when you consider the same companies are often lobbying against the very measures needed to help society reach Net Zero.

There are phrases that you’ll see used time and again in advertising and product packaging, like: “carbon neutral”, “Net Zero” and “nature positive”. These claims are often made without any real substance to back them up or they over-rely on the use of offsets, which can often not deliver the emissions reductions that they promise. This practice has become so widespread that, in a promising move, the UK’s Advertising Standards Authority has indicated that it will clamp down on firms making these claims.

In the aviation industry, we've seen companies marketing 'low CO2 flights' or 'sustainable aviation'. Neither of these claims stand up to any kind of scientific scrutiny and are misleading for consumers. But the impact isn't just on individual consumers making choices about whether to buy one product over another. It's much more insidious than that, language like 'sustainable aviation' or 'natural gas' reduces the sense of urgency needed to drive the transition to a carbon-free future.

I'm pleased that we're now starting to see guidance for how language should be used, with developments like the ISO Net zero guidelines and the UN Integrity Matters report. And increasingly companies are being held to account in the courts for their greenwashing – it's something we specialize in at ClientEarth. But as communicators, it is crucial that we closely interrogate the language that we use and don't fall into repeating language and terminology that misleads and plays down the urgency of the challenge we're facing.”

The need for climate education is not just limited to the school system: Research by Kite Insights on employee attitudes towards climate change revealed an emergent workforce committed to climate action. A survey found that 80% of employees express a readiness to adopt climate-positive practices in their professional roles. A striking 67% of participants perceived climate change as a severe risk capable of adversely affecting them and their loved ones within their lifetime, underscoring the urgency behind these attitudes. However, a significant gap exists between willingness and ability, with less than 50% of participants feeling adequate-

ly equipped to effect tangible change in their workplaces.<sup>272</sup>

This data underscores the importance of climate literacy in the professional sphere, which is emerging as a critical factor in job satisfaction and employee retention. 70% of respondents associated acting on climate change at work with their personal sense of motivation and well-being. 15% have contemplated changing jobs in the past year to more directly engage in climate-related matters, a figure that rises to 20% among the most climate-conscious employees.





- 70%** of respondents associated acting on climate change at work with their personal sense of motivation and well-being.

---

- 15%** have contemplated changing jobs in the past year to more directly engage in climate-related matters,

---

- 55%** of employees acknowledge their company's crucial role in tackling the climate crisis

---

- 34%** feel capable of articulating their company's climate commitments, But only

---

- 22%** amongst junior employees feel capable of articulating their company's climate commitments

Figure 91: Importance of climate literacy in the professional sphere.  
Source: Kite Insights.

Despite 55% of employees acknowledging their company's crucial role in tackling the climate crisis, only 34% feel capable of articulating their company's climate commitments, a percentage that decreases to a concerning 22% amongst junior employees. This suggests a pressing need for businesses, particularly those amongst the world's largest 2,000 publicly traded companies committed to net-zero, to prioritize internal climate education. By doing so, they can translate their climate commitments into meaningful action, bridging the knowledge gap and empowering their employees to drive a truly sustainable transformation.<sup>272</sup>



## IMPROVING CLIMATE LITERACY IN BUSINESS

BY ANNA MCSHANE

GREEN CLAIMS LEAD AT THE CARBON TRUST

“Businesses largely want to be transparent with their customers and wider stakeholders about their sustainability efforts, but aren’t always equipped with the knowledge and tools to do so, often leading to misleading environmental claims. The level of scrutiny surrounding corporate green claims is on the rise and, as a result, we have seen an increase in clients asking for guidance to navigate their sustainability claims and avoid greenwashing accusations.

In response, we are increasing our output of material such as information-sharing webinars (most recently in partnership with the European Advertising Standards Agency (EASA) and the Competitions & Markets Authority (CMA)), briefings and guidance documents, to reassure and guide clients. We work closely with them to shape their communications and share our principles upfront. These are focused on being factual, evidence-based, accountable, and making sure claims accurately reflect a company’s achievements.

Many of our corporate clients operate globally and often have questions about communicating across international borders, but the same principles of transparent communications apply. It’s also important to stay up to date with local regulations and legislations. Brands can reach out to their local self-regulatory organization (SRO) for advice.

It's also crucial to equip people with tools to envision the future, as our conventional ways of predicting the future are biased and limited. Improving our futures literacy can help us break free from these constraints, allowing us to better navigate the challenges that lie ahead. Futures literacy is the skill to understand and harness the human capacity to imagine the future. It helps us not only to expect what the future could hold, but also to understand how our own thoughts and feelings are influencing those expectations. Our conventional ways of envisioning the future – shaped by culture, norms and confirmation bias ([see 4.3](#)) – often narrow our imagination and limit it to pre-determined paradigms. This is further reinforced by our brain’s present bias, hinders our comprehension of new concepts and exacerbates short-termism.<sup>273</sup>

Futures literacy can be shaped by encouraging individuals to shape their imaginations through critical thinking and storytelling approaches – supporting them to envision the future rather than adopting dominant societal narratives. Futures literacy helps us become more aware of our own assumptions about the future, and turn uncertainty from a source of stress into a source of ideas and inspiration – helping us not just predict the future, but actively shape it.<sup>273</sup>



## HOW NETFLIX IS INCREASING 200 MILLION SUBSCRIBERS' CLIMATE LITERACY

Media and entertainment can be part of the solution in educating the public about climate change and promoting sustainability through its power to inspire. Companies like Netflix recognize the importance of sustainability and are taking steps towards reducing their own carbon footprint. But they don't stop there: Through their curated [Sustainability Stories](#), Netflix is promoting content that highlights climate issues and provides solutions for a more sustainable future. By making this content easily accessible for their over 200 million subscribers worldwide, Netflix is helping to raise awareness and educate a large audience about the importance of sustainability – contributing to climate literacy and promoting positive environmental practices.

Netflix has set two short-term climate targets based on scientific consensus, with a focus on the next decade: reduce their emissions by half before the year 2030, and achieve net-zero emissions by restoring nature and capturing carbon to support global net-zero goals. The majority of emissions result from the production of their shows, which are tackled through energy efficiency, electrification of vehicles, clean mobile power alternatives and renewable energy. In 2021, the company reduced emissions by 10%. In 2022, over 165 million households globally, representing more than 70% of Netflix members, viewed at least one show that helped them better comprehend climate issues or featured optimistic sustainability solutions.<sup>274</sup>

## EARTH MINUTES: BUILDING CLIMATE LITERACY THROUGH MEDIA

Earth Minutes specializes in environmental communication, on a mission to drive the future of environmental thinking and learning. They are a young collective of environmental researchers and creatives who provide a diverse range of communication services that are grounded in science with the strong values of optimism and innovation. Their goal is to make environmental information more accessible physically and financially, and sustainable – including digital sustainability – for all. Ultimately, Earth Minutes aim to ensure that everyone is provided with the sufficient tools to think and live more sustainably.

Most recently, Earth Minutes built a 'Digital Ocean School' in partnership with Surfers Against Sewage. This is an immersive 360-online platform, with the aim to make ocean education more engaging and inclusive for all, especially urban communities. Through online workshops and 'connect, explore and protect' activities, this experience helps young people to feel more connected to the coast and encourages local action. This platform also challenges the level of accessibility across current educational resources, in which they have developed a diverse accessibility toolbar – including dyslexia text and audio transcript functions – to ensure more young people can be provided with the sufficient tools to connect and protect the ocean for their futures, as well as the planet's. With nearly 3,000 users since the launch in 2022 and double the user retention rate in comparison to other virtual tours, this platform is reimagining the future of ocean education.



*Earth Minutes' SHE Changes Climate campaign*



## 6.RE:IMAGINE

### 6.5 LESSONS LEARNED FROM OTHER EFFORTS

Written by Sophie Ozoux Syrigos and Kwame Taylor-Hayford, co-founders of Kin, and Neil Dusuki, Strategy Director at Kin

Climate change rhetoric has led people to fatalism, apathy, paralysis, despair or worse, indifference. For decades the story of the climate crisis has been told primarily through statistics, charts and graphs or through the prism of its dramatic consequences: hurricanes, floods, endangered species, houses on fires... This approach, oscillating between quantitative and alarming, has certainly created awareness of the problem, but it has failed to inspire the urgent and significant action needed to build a better future. In that regard, the climate crisis is also a crisis of imagination and storytelling.

Entertainment, advertising, journalism, music and art have proven some of our most powerful tools. They have the ability to deeply move people and change minds and behaviors. It's past time that storytellers across media apply our skill to the pressing issue of climate change. But why is it so hard? How can we use our boundless imagination and creativity to dream up new stories that will move us forward in this fight? How can we make people feel the problem and work to be part of the solution? How can we appeal to what inspires and excites? How can we motivate people to believe in their potential and drive them to act in their own self-interest, and in the interests of people they care about?

Making this pivot requires a deliberate shift in our approach. We need to change "the brief" for the stories we make and share. In the paragraphs below, we will explore essential elements that we believe will lead to compelling stories that drive action and real change on climate today.

A continuous stream of catastrophic climate news has left us feeling fatigued and paralyzed.

Hopelessness is already widespread among those who care most, and hope will only become harder to maintain as the crisis worsens and the impact of our best efforts remain invisible. The hope needed to fuel change will not be inspired by more stories that stoke fear. What we need instead is a radically hopeful vision for the future that taps into people's dreams and desires and that inspires us to make changes.

Albert Einstein famously said, "If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales." We need to lean into our imaginations and what seems "impossible." If we move on from merely dramatizing the problem to celebrating our progress through innovative solutions, we will fill ourselves with a sense of possibility and excitement that a better future is on the horizon.

It starts with focusing on solutions. We need to flip the script and tell a story of hope, possibility and human agency. Show that not only is change needed, but that it is possible and exciting. Our unrelenting spirit and our boundless creativity to craft the solutions will make the difference. In order to overcome climate change, we need to believe that we can.

Innovative solutions are all around us and developing fast. Change is happening, but it has not been widely communicated and in a way that captures our imaginations. From [green cities](#), to [air proteins](#), [plastic from seaweed](#), [leather from pineapple leaves](#), [stones that capture CO2](#), [salt water turned into electricity](#), [fish waste turned into biofuel](#), [giant nets cleaning up rivers and oceans](#) or [drones planting forests](#), these solutions are not science fiction, they are science fact and showing very promising results. Let's celebrate the audacious pioneers behind them, and inspire their "first followers" to fuel movements of the future.<sup>275</sup>

## USING STORYTELLING TO INCREASE VOTING

BY JOEL BACH

EXECUTIVE DIRECTOR OF THE YEARS PROJECT

Our approach to communicating the climate crisis has evolved dramatically over time. With Season One of our TV series *Years of Living Dangerously*, which aired in 2014, our goal was to leverage the power and reach of Hollywood A-listers to show that the climate crisis was here and now, not some distant problem for future generations. One of our goals was to convey that solutions to the crisis were being outpaced by climate impacts – in other words, technology alone wasn't going to save us. We succeeded in reaching tens of millions of people with these messages – and we know, from rigorous social science testing, that 3 out of 4 people who watched the program came to recognize climate change as “relevant to their daily lives.” We also saw that one out of every two viewers took some sort of action – whether it be talking to friends and neighbors about the issue, seeking more information, sharing insights online, or even voting on climate.



Figure 142A: Efforts to increase climate change awareness using storytelling.

In the wake of the TV series, we pivoted to social media. We saw an opportunity to reach far more people, and with greater speed. We also felt that working in short-form would allow us to better respond to the many needs of the climate movement. We produced hundreds of social-first climate videos, optimizing content for each of the social media channels. We created playlists to deliver specific content – the science, the solutions, the politics, the impacts – to specific audiences. We became the go-to digital media organization for reporting on the crisis and worked closely with the world's leading climate organizations, climate scientists, youth and frontline activists, business and political leaders. We garnered more than a billion views of our content online and saw massive engagement by our viewers.

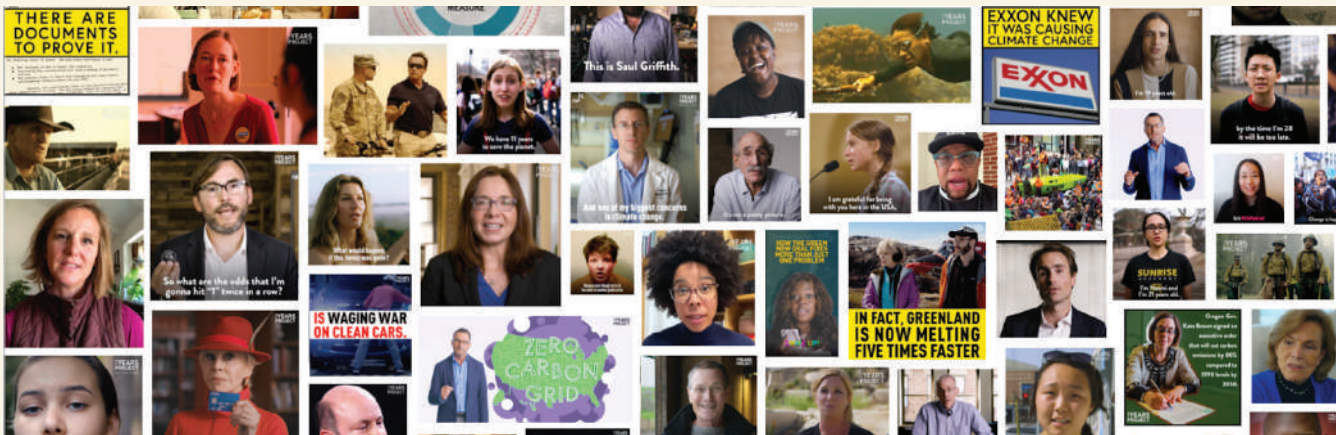


Figure 142B: Efforts to increase voting turnout in the US using storytelling.

An ancillary goal was to see if we could convey the urgency of the crisis beyond the political spectrum. Working with a variety of partners, we broke down American voters into nine categories. Utilizing Facebook's Ad Manager, we employed ad buys to guarantee our content would be delivered to those nine audiences. Throughout the process we closely monitored message and video performance – specifically focusing on visible engagement (such as shares, likes and comments) and silent engagement (like average watch time and cost per view). The results were a pleasant surprise. We learned that 'Red America' watched our videos 10% longer than 'Purple America' and 20% longer than 'Blue America', with similar trends seen in content sharing behavior. We found that climate change messaging can elicit high engagement across political groups, and those messages do not have to be limited to those echoing people's existing views.

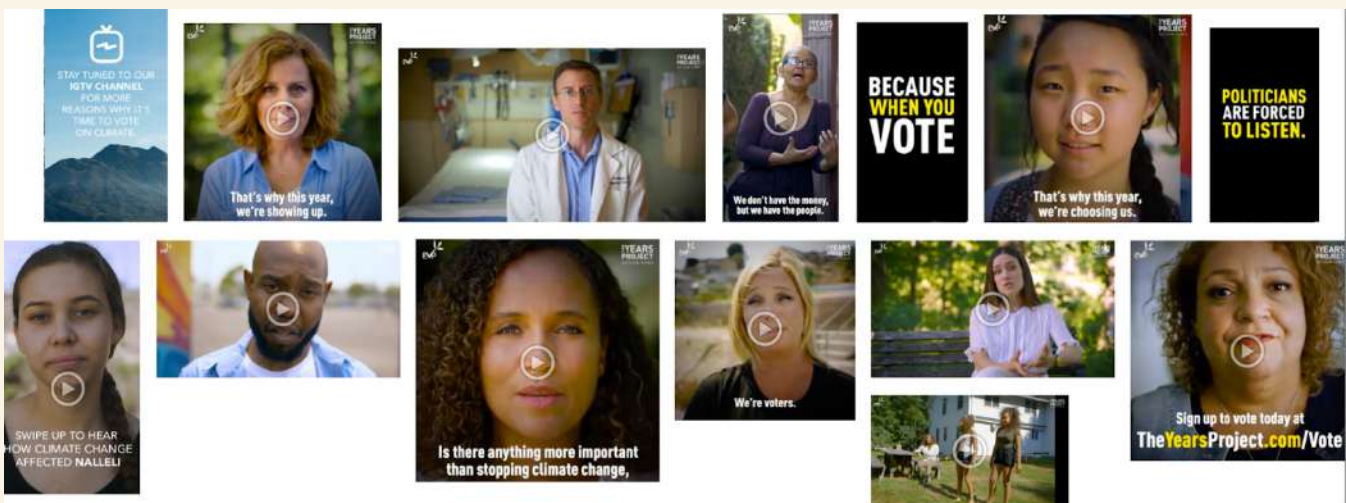


Figure 142C: Efforts to increase voting turnout in the US using storytelling shared in social media.

We also wanted to know if short-form video content delivered to specific audiences on social media could create change in attitudes as well as behavior. That is, could a 90-second Instagram video make someone act differently? In 2018, we teamed up with the Environmental Voter Project to create a series of Get-Out-The-Vote videos designed to increase voter turn

out in US midterm elections in six states. Leveraging our storytelling expertise, behavioral science research and latest voter targeting techniques, we delivered content to over two million self-described environmentalists who had a history of not voting – resulting in over 40,000 new voters on November 6, 2018.

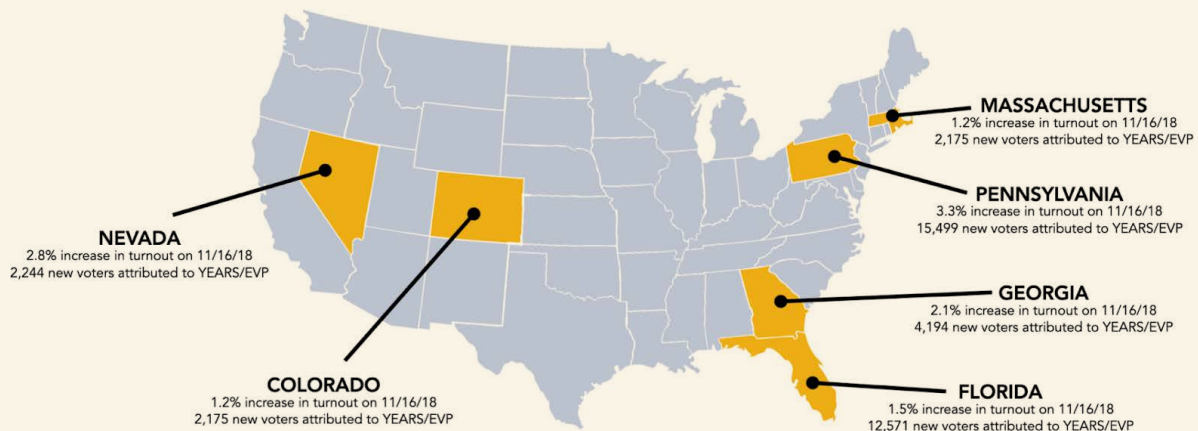
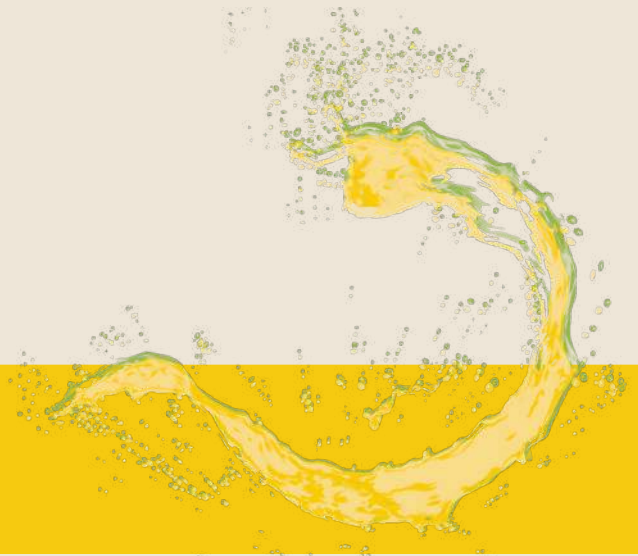


Figure 142D: Results of the efforts to increase voting turnout across US states using storytelling.

Next, we need to reimagine the role we all play and build confidence in our ability to change, adapt and innovate. We have heard the “inconvenient truth” about our human nature and how our lifestyles contribute to the problem. The only things that can save us from our worst inclinations are our greatest superpowers. We need reminders of the power of the human spirit and what we are capable of if we come together. Stories that capture our interconnectedness and restore faith in our ingenuity, resilience and unity. We need to highlight our ability to evolve and overcome even this existential challenge. *Arrival*, directed by Denis Villeneuve, is a great example of a narrative that shows what we’re capable of when we work together. It also imagines a better future for humanity through that connection. The television series *Class of 09*,

by Tom Rob Smith, explores how a group comes together to address the dramatic counter-effects of AI and its threat to privacy and freedom, an issue that they created in the first place. *Disney’s Strange World* follows a family of explorers who must set aside their differences as they embark on a journey to a mysterious subterranean land in order to save the miracle plant that is their society’s source of energy.





## CASE STUDY: COVID-19 COLLABORATIVE

In 2020, the US Ad Council and COVID-19 Collaborative launched the “It’s Up To You” campaign, including more than 300 major brands, media companies, community-based organizations, faith leaders, medical experts and other trusted messengers to promote a Vaccine Education initiative, with a focus on Black and Hispanic communities who were hit the hardest by the pandemic and also tend to have lower vaccine confidence.

The initiative raised \$52 million for a national communications effort raising confidence in COVID-19 vaccines. The Collaborative’s outreach was carried out through community partnerships, involving influencers and trusted messengers, as well as diverse community outreach.<sup>276</sup>

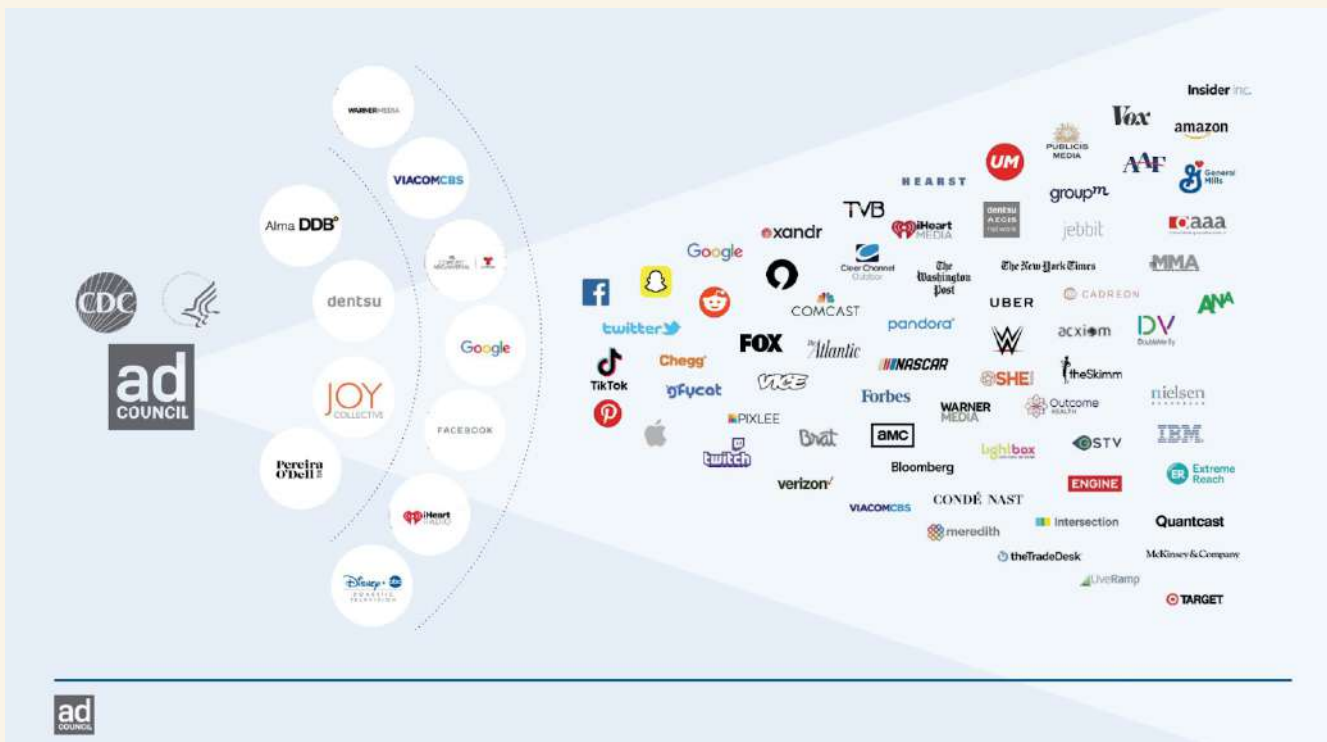


Figure 143: Entities involved in providing funds for a national communications campaign of the US Ad Council.

Other lessons from the successful COVID-19 Collaborative effort include respecting people’s independence and choice, appreciating concerns, radical information transparency, and welcoming questions. The campaign avoided the use of guilt and shame, striking a positive yet realistic tone.<sup>276</sup> Its success can also partly be attributed through their involvement of unlikely partners which allowed the initiative to maximize its reach - from media companies, retail chains, on-demand ride services, news outlets and online retailers.<sup>184</sup>

This model could and should be applied to climate communications – building a broad coalition of stakeholders which can reach into all corners of the public, conveying messages in a way that is relevant to people’s identities and lived experience. Many organizations,

NGOs and campaign groups find themselves in a communications bubble – but in order to supercharge decarbonization efforts, we will have to break the echo chamber.

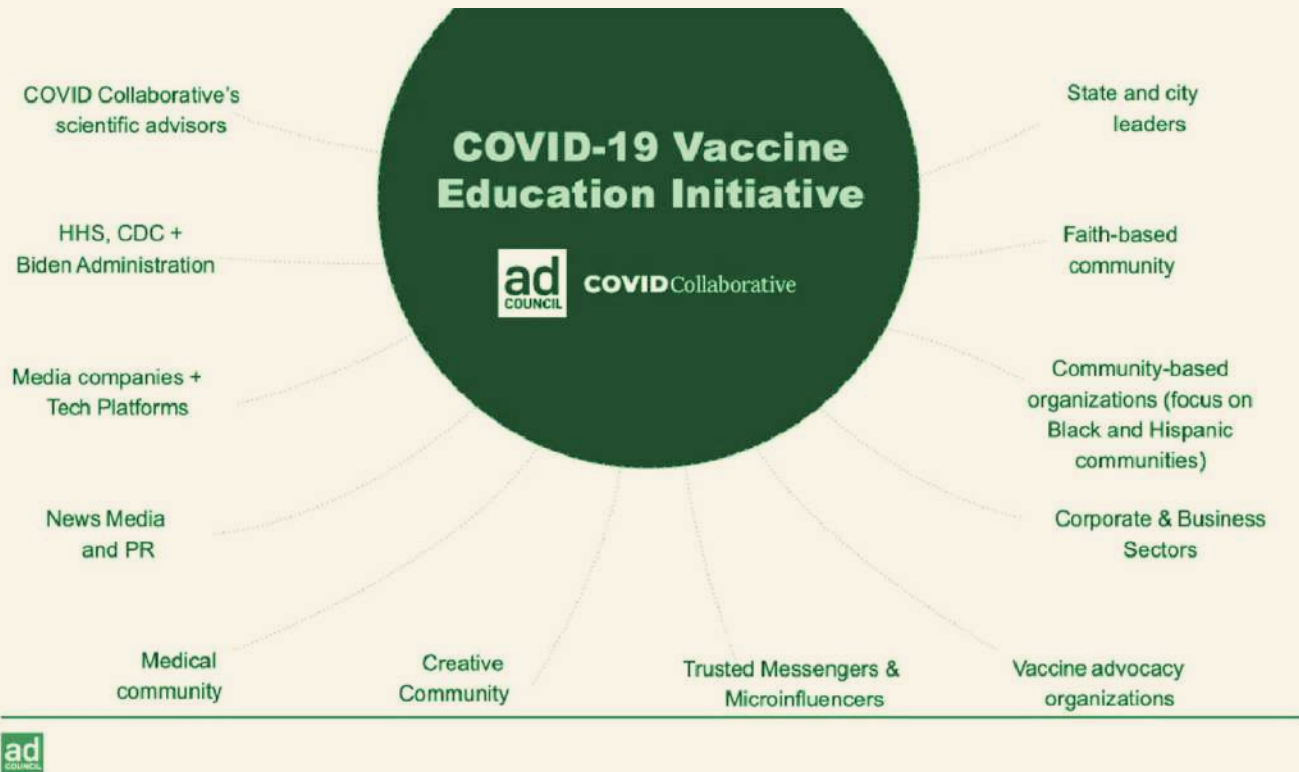


Figure 144: COVID-19 Vaccination Campaign by the Ad Council.



## HOW THE PANDEMIC RESPONSE DROVE BEHAVIOR CHANGE

BY ANN-CHRISTINE DUHAIME

NEUROSURGEON AND AUTHOR, HARVARD MEDICAL SCHOOL

A general principle of behavior change is that “positive works better than negative”. However, this must be balanced with another core value of communication – honesty. With regards to climate change, most experts predict with a high degree of certainty that even if all carbon emissions were stopped suddenly, due to physical laws and delays in global warming cascades the consequences of climate change will get worse before they get better. For this reason, as in any difficult conversation, climate communicators need to set realistic expectations without discouraging people so that they “tune out” or give up rather than taking needed action.

In the field of medicine/public health, such a nuance was communicated quite effectively during the COVID-19 pandemic. Here, the emphasis was on “flattening the curve”. Not all deaths could be avoided, but with appropriate actions, extreme peaks could be blunted, allowing a better match of resources to need, and an overall major reduction in mortality. A similar message in the climate context could help decision-makers avoid a sense of futility. This is especially relevant since, as noted above, reinforcement of a pro-environmental decision by an immediately perceived positive consequence already is compromised by the prolonged time frame and global magnitude of the climate change crisis.

Finally, we need to illustrate, in a tangible way, how we exist and evolve in the future we create together. It’s not enough to show that we can survive, it’s important to represent how we thrive and continue to endure through the existential threats that will invariably present themselves.

"Creativity is at the heart of sustainability. It can mean anything from humanity's ability to transform itself to tackling specific problems. Creativity is a special kind of renewable resource and human talent"

-Hans d’Orville, Assistant Director-General for Strategic Planning at UNESCO, in Cadmus



## 6.RE:IMAGINE

This idea is at the heart of the solarpunk movement, captured in the short film *Dear Alice* from yogurt brand Chobani. It communicates beautifully the idea that nature and technology can grow in harmony, creating a wonderful new, sustainable world for future generations.



Figure 145: *Dear Alice*, Chobani.



## 6.5 LESSONS LEARNED FROM OTHER EFFORTS

An overwhelming amount of evidence has helped us understand the long term threats we are facing. It's useful, but it doesn't help us feel, on a visceral level, what it will mean for us because it appears too removed from our lives. To turn awareness into action, we must shift

from data-driven messaging to emotive, human-focused narratives. To move people from sympathy to true, deep empathy and care, it's not enough to tell stories, we need to make people feel them.

To get there, we need to carefully consider every aspect of storytelling; every single ingredient matters:

- The point of view we adopt: personal stories, shared through a first-person perspective and relatable scenarios, with local relevance, allow us to connect on a much deeper level.
- The narrative we shape: the underdog story, the resilience story, the transformation or rebirth story. These powerful narratives and plot types pull people in. We become truly invested in the journey and the outcomes, motivated to act because of the lives,

## 6.RE:IMAGINE

families and communities depicted and the parallels or stark differences to our context and lived experience. They make you feel you have skin in the game and build a sense of confidence and hope.

- The media we use: let's tell these stories using the most powerful tools we have in our arsenal: video with sound, because it is highly immersive; with our senses engaged we're drawn in and intuitively connect with the topic.
- The craft we apply: the level of craft of climate communications has to rise to meet our expectations of the entertainment we consume regularly to fully immerse our audiences.

Take for example Netflix's breakout hit *My Octopus Teacher* – a powerful, first-person rebirth narrative told as an immersive and gorgeously crafted feature-length documentary. It single-handedly deepened our understanding and relationship with an extraordinarily intelligent animal. Being immersed in this relatable story and their first-hand connection (protagonist, octopus, environment) was impactful. We knew octopuses were smart, but it took a proxy relationship with them for many of us to see that and commit to stop eating them.

## 6.5 LESSONS LEARNED FROM OTHER EFFORTS

The [Breathing Tree](#), a subtle but powerful film we created for the Nature Conservancy, highlights how interconnected nature's health is with the health of every individual on the planet and our communities. By anchoring ourselves in the true story of an asthmatic little boy living in a polluted urban environment, we create an immediate personal connection.

There aren't enough other examples in climate communications, but we can take inspiration from other sectors. Toward the cause of pediatric health, [SickKids VS: Undeniable](#) from the Hospital for Sick Children transformed the story of children and families dealing with illness into an underdog story that emphasized their grit and toughness. Procter & Gamble's [The Look](#) powerfully condensed the issue of racial microaggressions experienced by Black men in America to a single stare. The film challenged you to question your own behavior, your own bias, and provided resources to lean in and learn more about. [8:46 Films](#) took the collective pain felt around the globe after George Floyd's murder and turned it into progress by re-imagining, through the lens of hope and joy, Black stories and life in America. [Dopesick](#) or [Painkiller](#) immerse you in the opioid crisis from the boardrooms of Big Pharma to the victims' broken lives.



Figure 146: *My Octopus Teacher*, by Pippa Ehrlich.

## 6.RE:IMAGINE

Keeping climate communication separated as its own “genre” only reinforces perceptions of it as complicated, daunting and polarizing, and encourages people to distance themselves from the topic. It’s easy to tune out when you see the issue as separate from your daily existence. Ubiquity is essential to awareness, and to creating new social norms that drive engagement.

Let’s stop discussing climate in a silo and start showing how it’s a part of everything. It’s an interconnected issue that deserves an interconnected story, platform and conversation. We need a story, platform and conversation.

## 6.5 LESSONS LEARNED FROM OTHER EFFORTS

we need to make the issue unavoidable and the solutions irresistible by infusing it into content we love. Visions for a new world where we prioritize the well-being of all, respect planetary boundaries and generate sustainable growth can quite literally be infused into almost every show, movie and song – into our cultural fabric.

Stories that are as captivating and influential as the best entertainment out there. *Wall-E* or *Don’t Look Up* are both examples of outstanding but mostly standalone stories that changed the world’s understanding of the crisis and sparked discussions.



Wall-E

Figure 147: WALL-E, by Andrew Stanton.



Figure 148: Don't Look Up, by Adam McKay.

## 6.RE:IMAGINE

We have come together on issues of similar complexity before and successfully accelerated important social change by using the full power of our media ecosystem (brands, entertainment and news, etc.). The racial justice movement is a good example of how one catalyst can galvanize a community to use its cultural influence to drive conversation and action. Black Lives Matter after 2020 became much more than a rallying cry. It was integrated into so many facets of life globally—from influencing narrative arcs on TV shows like *Black-ish* and *Grown-ish* to Apple setting up a \$100 million fund in support of racial justice—that the impact on the worlds of art, fashion, sports and beyond was undeniable.

We can create ubiquity. Take the work of Pharrell Williams for example and his mission to empower Black and Brown voices. It is a constant red thread in everything he does—from his music in songs like “Freedom” from the *Despicable Me 3* soundtrack for example, to his production company and label I AM OTHER which elevate diverse voices. He produces movies about underrepresented heroes like *Hidden Figures* and created Human Race with Adidas, a line designed to promote a spirit of equality, coexistence, and understanding. He also has Black [Ambition](#), a nonprofit investing capital and resources in Black and Brown-owned startups and [Mighty Dream](#) Forum, a conference promoting minority entrepreneurship. He constantly finds new outlets at the intersection of important issues, pop culture, entertainment, fashion, business and experiential. Just as important, he executes it all with a high degree of style, warmth and

## 6.5 LESSONS LEARNED FROM OTHER EFFORTS

freshness that make every project a coveted initiative you want to join – which, in turn, adds to the desired contagion and social reward.

We've seen how prolific and effective cross-collaborations are in art, music, fashion, entertainment, and advertising. We can apply this approach so that climate communications are all pervasive, in all aspects of today's culture and media.



## BECOMING NATURE POSITIVE

BY RICHARD ARMSTRONG

MSQ/SUSTAIN

Nature is the climate movement's forgotten solution. Overlooked and disregarded, it is nonetheless vital that we protect, conserve and manage our natural capital and biodiversity alongside our pursuit of reducing emissions. There is no 1.5 without nature.

Our brief was simple. Use the power of advertising and communications to “mainstream the idea of Nature Positive” - to mainstream the term Nature Positive, and make it as urgent, as compelling and as well-known as Net Zero. Nature needed its own Net Zero moment.



Figure 149: Campaign to mainstream the idea of Nature Positive.

Funded by a coalition of 32 leading NGOs, this campaign managed to put nature at the very heart of the world's two biggest environmental conventions, COP27 and COP15. Literally at the center of the Blue Zones. How? By creating a campaign idea that lifted everyone who came across it, by offering a vision of optimism, by saying 'this is possible' - we CAN change, and we CAN reverse the tragic decline in nature and biodiversity. The Nature Stripes, created by Professor Miles Richardson using the WWF / Living Planet Index, visualize this decline. From green to gray. A bleak picture. But a visually interesting one.



Our idea? Deceptively simple, by inverting the stripes, they no longer represent a metric of decline, but instead provide a lighthouse of optimism and an idea that the diverse and fragmented nature community could collaborate around. We can do this, we can achieve our own 'Paris Moment' for nature. Change IS possible. After all, 'Change is in our Nature'.

Whilst acknowledging the degradation of the planet's biodiversity, we wanted to provide a vision of a Nature Positive future, and to show that humans have the power to make the change needed. Only by re-establishing a close connection with the natural world can we meet the goals of the Paris Agreement and achieve a net positive outcome by 2030, and a full recovery by 2050.

This is no easy task. Firstly, many aren't aware of the scale of the nature crisis. Yet, since 1970, there has been a 69% decline in the populations of mammals, birds, fish, reptiles, and amphibians, and it is thought that one million animal and plant species - almost a quarter of the global total are threatened with extinction.

Secondly, CO2 emissions dominate modern environmental discourse. Nature needed to fight its way onto the agenda. We needed an idea that could unify and engage investors, business, governments, and the population at large. To mainstream the phrase Nature Positive and create a distinctive visual identity to help explain and showcase the term. And we needed to inspire - to show that we have the power to make the change and meet the Nature Positive goal to halt and reverse nature loss by 2030.

With no media budget, it required a simple, distinctive idea to put the topic on people's agenda, and to provide a springboard for conversation and debate, that would lead to behavior and policy change. And the idea would need to have stand-out, to cut through the noise at both COPs. Our job was to accompany this with a visual identity that could work as a shorthand for this vision and become readily adopted by a broad range of communities.

Taking data from the WWF / Living Planet Index, Professor Miles Richardson had created the 'biodiversity stripes' as a compelling visualization of the decline in nature. Much as the warming stripes have told the story of climate change. Each stripe represents a year since 1970 and shows the decline from green to gray.

From the moment we first saw the biodiversity stripes, we knew this was an important piece of communication – simple, visual, and crucially science based. Could this be an opportunity to collaborate? We reached out to Professor Miles Richardson. But rather than simply utilizing the stripes as a metric of decline, we wanted to use them to be a symbol of optimism to show how a Nature Positive future could be achieved.

We reversed the stripes to create an iconic and memorable identity, that introduced imagery of 'nature in motion' under the phrase Change is in our Nature, to set the backdrop for the debate on nature and climate and crucially to show that change is possible. This plays to both the fact that humans are ecological engineers who have the power to change our world, and to the truth that nature is something that can constantly evolve - for worse or better.

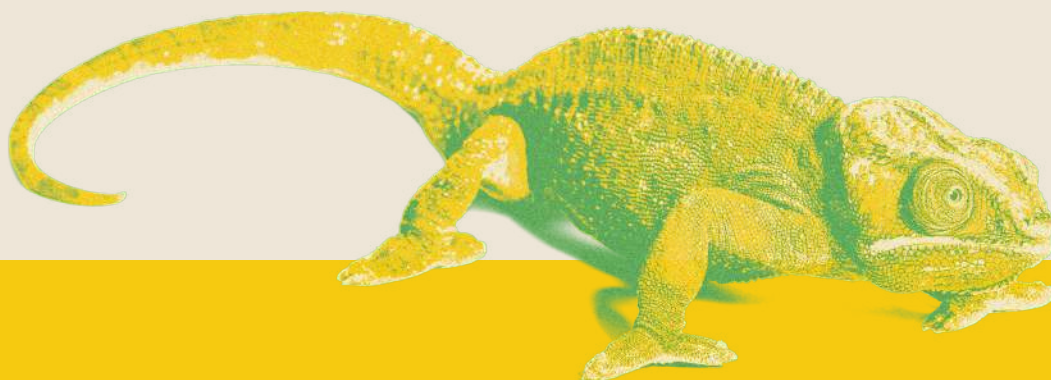
By having a unified, visual creative platform to not just tell the story of nature's decline, but to provide an optimistic vision for nature, we provided a focal point for the promotion of nature in the climate debate before, during, and after COP27 and COP15. We achieved a significant presence in the event pavilions themselves, and in the accompanying media conversations, including on social media. The platform allowed PR to amplify the conversation, to engage key audiences and the media by promoting content through events and media briefings, therefore firmly putting nature and nature-based solutions on the agenda, which could be heard at both COPs and way beyond.

At COP27, Nature Positive was mentioned in over 1,000 pieces of coverage from The Guardian to China Weekly. We put nature on the agenda, with 22.8k pieces covering biodiversity in relation to the conference. Media coverage reached an international audience of over 30 million in more than 60 countries. Across social media, the Nature Positive campaign received an average of 98% positive sentiment, leading to up to 200k engagements (65k mentions of #Nature Positive) on Twitter.

On LinkedIn, engagement rates increased by 70% compared to 2021. Over 250 partners, local leaders and organizations engaged with Nature Positive content across social media channels. This was further amplified at COP15; 5.3k articles mentioned the term Nature Positive, with 170 media highlights from key outlets.

Over 10 days, the pavilion hosted 138 sessions with support from 80 different organizations and 40 heads of state. A product of a collaborative approach from 32 organizations, the Nature Positive campaign facilitated conversations which allowed Nature Positive to become established in the minds of key decision makers and the public, by creating strategic messaging and communications outputs leading up, during and post COP27 and COP15.

Our campaign did so much more than helping a brand look good by going green, it has helped set the planet on the right course towards a Nature Positive future.



## 6.RE:IMAGINE

Consumer perceptions and behaviors play an important role in shaping a new cultural narrative. This represents an enormous opportunity for marketers, across the private and public sectors. We need to better align sustainability initiatives with our human reward system.

## 6.5 LESSONS LEARNED FROM OTHER EFFORTS

To debunk the false notion that sustainability requires sacrifice (e.g. higher price, lower experience, lower quality), we need to reveal all the direct and indirect benefits of making sustainable choices. Functional benefits are often hidden, either in complexity or in the future. We can make them tangible and immediate in a few ways:

- Firstly, maximize the value perception. We can do this by stressing the co-benefits of sustainable choices, such as cost savings when opting for an electric car. It reinforces that you are doing the right thing for yourself (saving money) and the planet (reducing emissions).
- Secondly, minimize the sacrifice by making it easier to make more sustainable choices. This can be done through comparison websites and services – such as Google’s fuel-efficient routes – and nudges us towards the most sustainable options, often without having to pay more.
- Finally, affirm positive choices through community. We can compensate for the loss of instant gratification by tapping into people’s sense of pride and desire for social reward. To excite people to become part of the solution, we need to build social proof into everything we do. Amplifying the habit change of people we relate to or look up to will create a contagion effect and ultimately help move change from the periphery to the center.



## HOW TO BUILD A MORE UNIFYING CLIMATE ACTIVISM

BY WILL HACKMAN

CONSERVATION AND CLIMATE ADVOCACY EXPERT

We have decades of best practices when it comes to successfully building public identification to issues of societal concern. We've done this with anti-smoking, seatbelts, civil rights and more. No issue ever reaches 100% acceptance, and there will always be some who never identify with them. But virtually everyone accepts that not wearing a seatbelt or smoking may kill you. Not as many see the imminent danger from climate change.

Successful advocacy campaigns provide an optimistic vision of the future. They provide tangible examples of what we can work toward and build together. They transcend polarizing messages and find ways to bring more people into the conversation beyond the "true believers."

Successful campaigns also humanize an issue by making it as personal and local as possible. If you can see yourself in an issue, you will care more. This builds issue identification. We know the challenge of solving climate change is not scientific or technological at this point but rather political. The messages we create, as activists and advocates, make all the difference in how we build political engagement toward policy solutions.

Rejecting world-on-fire messages and reframing our advocacy messages are critical to create a more unifying climate activism. We can learn to have new conversations about what climate change means to us, in our lives, here and now. Not in the future, not in remote frozen landscapes, not thousands of miles away.

By taking these actions and learning best practices from previous successful movements, we can change beliefs, regain our optimism for a hopeful future, and see our own personal role in the changing world around us while inspiring new conversations and ways of looking at climate solutions.

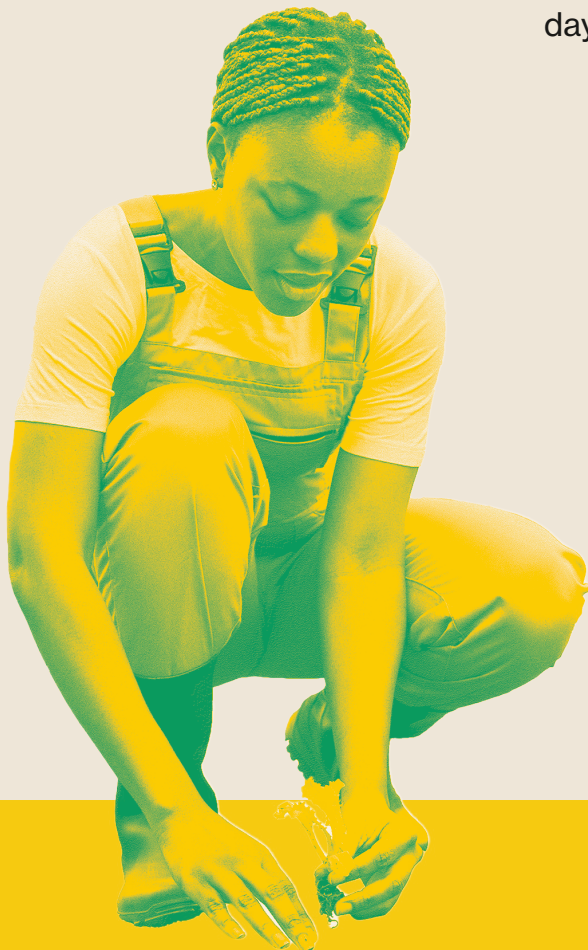


## 6.RE:IMAGINE

To be sure, climate scientists and directly impacted communities must have a hand in shaping the narrative-driven, emotional communications we hope to see. Communications without their valuable guidance and input run the risk of drifting into propaganda that misses its intended target or further confuses the facts of the matter. We saw this for example around the issue of drugs in the 80s and 90s with the Just Say No campaign and the Partnership For A Drug-Free America, which sought to end drug use nationally through a campaign of PSAs and other messaging. The result of that often-sensationalized messaging was a degree of fear-mongering that fueled mass incarceration. Collaboration on this is essential to create brave narratives essential to driving the change we hope to see in our world.

## 6.5 LESSONS LEARNED FROM OTHER EFFORTS

**RECOMMENDATION:** Countries around the world are facing an urgent need for better climate education. While some progress has been made in incorporating climate topics in educational systems, the pace isn't fast enough given the pressing nature of the climate crisis. Effective education doesn't just mean teaching the facts, but ensuring they're introduced at the right time and in a way that engages students. A growing number of projects demonstrate how it can be done – but these should become standard practices, not exceptions. Coupled with the influence of media and creative industries, there's potential to combine facts with emotive storytelling to make climate information accessible and memorable. The task ahead is clear: we need to ramp up educational initiatives, bridge knowledge gaps beyond educational institutions to include places of work, and empower a global audience that is not just aware but inspired to take action in their everyday lives and communities.



## CHAPTER 7 – RE:COMMIT

# SUPERCHARGING CLIMATE ACTION THROUGH CREATIVITY

---



## 7.RE:COMMIT

**C**reative industries, especially advertising, bear a historical responsibility in the climate action conversation. They have not only been at the forefront of driving change but have also been guilty of a history of misinformation and promoting excessive consumption. Advertising and other creative sectors are doing their job of persuading and selling ideas incredibly well – but they need to change.

Covering a multitude of sectors, from advertising, architecture, and film to software and TV/radio, these industries don't just represent the heartbeat of the creative economy – they're an imperative force for climate action and communication. UNICEF highlights that the significance of creative industries is dual: they are not only an engine for commercial and cultural innovation but also pivotal in propelling human development. When fostered and harnessed, these industries can overhaul our economies, boost socio-economic advancements, and spawn employment avenues. Besides their economic impacts, creative industries advocate for social inclusion and champion sustainable human development, carving a path for a greener and more inclusive future.<sup>277</sup>

The world of marketing, media, and creativity takes on a complex role right at the crossroads of business and society. It's the bridge that links companies and people, using brands as their connection points. There's a unique opportunity now more than ever for creative industries to enact change. Through various channels like advertising, entertainment, publishing and technology, these mediums have a big say in shaping our culture. They're like the vehicles that brands use to build connections between what we want, what we dream of, and how we choose to buy and experience things.<sup>278</sup>

Over the course of many decades, marketing narratives, creative assets, and advertisements have wielded significant influence over our perceptions of value and aspiration. They have molded our sense of what is considered normal

and desirable within the cultures and societies we inhabit, leaving an indelible mark on our personal and collective values, worldviews, identities, and ways of life. This influence has been cultivated through an ever-evolving array of strategies that have been driven by data and tactics, now turbocharged by the rapid evolution of technology.<sup>279</sup>

In marketing, the term Brainprint acknowledges the profound psychological, sociological, and cultural impact that branding, marketing, and creative endeavors can wield. At every juncture where brand, marketing, and creative professionals make strategic or creative decisions, there lies an opportunity to reinforce either sustainable or unsustainable behaviors, norms, and the underlying values that shape them. Given that our attitudes and actions shape our interactions with the world, the Brainprint of marketing emerges as a driver of culture and how we act with regard to climate and environmental issues.<sup>278</sup>

While the contemporary marketing Brainprint is acknowledged to contribute to unsustainable consumption, it also carries immense potential to support sustainability. It has the capacity to influence the thoughts, emotions, and actions of others. But brands – operating as commercial entities – also benefit from the power of skilled, adept marketing teams backed by substantial budgets. Historically, this influence has been primarily directed toward commercial objectives. As of 2023, the global entertainment and media market commanded a valuation of \$2.5 trillion USD, while the global expenditure on advertising reached \$856 billion USD. Undoubtedly, the Brainprint of marketing is an influential force – but currently, it falls short of investing in a flourishing future for all.<sup>278</sup>

If brand managers, marketers, and creative minds can harness the potential and resources of the Brainprint, channeling it toward sustainable objectives, they hold the power to drive transformative change through the communica-

## 7.RE:COMMIT

tion channels and platforms that facilitate societal discourse on a grand scale. Dismissing the notion that marketing could abstain from guiding society and culture is unfeasible. Therefore, it is imperative to look for its influence toward a novel movement – one that transcends materialism – embedding sustainability into our cultural fabric, societal structures, prevailing norms, and narratives, propelling the systematic transformation we urgently require.<sup>279</sup>

In the future, the most influential brands will be those that embody sustainability – guiding us individually and collectively toward a renewed connection between our human identity and the

natural world. They will guide our perception of what is most precious, inspiring, and coveted, aligning these ideals with prosperous outcomes for all forms of life.<sup>280</sup>





### 7.1 FUTURE-PROOFING THE MEDIA LANDSCAPE

The media industry holds enormous sway over public perception and action. Together with marketing and advertising, it not only drives consumer choices, but also shapes our understanding of major global issues including climate change. It's crucial for this industry to recognize its influence – or Brainprint – on the public mindset, moving beyond simply decarbonizing its own operations.

It's the duty of the media to report on the impacts of the climate crisis accurately. But beyond just presenting the problem, there's an urgent need to spotlight solutions and lead by example. By shifting its approach of communicating climate, media can play a pivotal role in mobilizing public and private sectors towards transformative climate action.

## JOURNALISM HAS THE POWER TO INSPIRE CLIMATE ACTION

BY SIMON MULCAHY

PRESIDENT, SUSTAINABILITY, TIME

Business can be the greatest platform for change. The transition to the post-fossil-fuel economy is well under way, and corporate leaders are already spearheading the charge, slowly but surely reshaping whole industries. The writing is on the wall and clear to most regulators, investors and the largest businesses. However, the majority of business professionals are not capitalizing on these emerging opportunities. Instead, many are making decisions based on the conditions of the past, not those of this emerging future. Progress towards the post-fossil fuel economy is too slow. This not only slows down progress, but also increases climate-related loss: economic, natural and human.

It's understandable why there's such a lag. For the most part, climate change is portrayed in doomist language, and climate action argued as a moral imperative. Most people have limited technical expertise on climate issues, and the effort to make sense of the complexity and how to act is too great. People would feel more confident to act if climate action were made more relevant to their lives.

Climate action is not just a moral imperative, it's an exciting economic rationale for change. What the world needs is stories that prove others are already connecting human and economic value to climate action. We need to bring the business case for climate action to life with clear evidence: stories of believable solutions.

We believe that journalism has the power not just to inform, but also to inspire and enable whole populations of change agents - through stories of what people are already doing to connect climate action to business value. We also believe that every business professional finds themselves in the midst of an exciting learning journey akin to the digital revolution that took place in the past few decades.

TIME celebrated its 100th birthday this year, but our future is in the post-fossil fuel economy. We're innovating to serve every company on or starting its climate journey. We're committed to economic growth, a healthy planet and climate justice. Our award-winning climate journalist team, deep expert partnerships and in-house climate experts are dedicated to reshaping the climate narrative.

Media drives people to buy products and in the same way, it can drive people to change their behavior. The promotion of a product – whether that's something to buy an action to take – can be part of the solution to tackle climate change. In fact, viewing climate action as a product to market to broad audiences is the first step to creating a clear communications strategy for enabling broad public action. Some media agencies are already beginning to use their influence to restructure how the marketing and advertising industry utilizes its reach.

The media and entertainment sector plays a pivotal role in shaping public opinion. Beyond the news and entertainment content, the industry influences everyday decisions, from the products we buy to how we spend our time. With the average individual in the US watching over four hours of television a day and seeing tens of thousands of ads a year, the media's "brainprint" – its intellectual and psychological influence – can't be overstated. The media sector has a responsibility to use its intangible influence for good, positively influencing societal mindsets and values to promote climate action.<sup>121</sup>

“As we prepare to beat climate change, what has yet to be ‘done’ is a culture of climate optimism; the belief that the world will be better, the confidence that we can make it, the recognition that the action required is urgent, exciting, necessary and full of opportunity. (...) I prefer to think of it as a culture gap. A gap between what we are doing, and what is possible and in fact necessary, on the other. No industry is better positioned to close this gap than the media sector.”

- **Christiana Figueres, Responsible Media Forum Report**





viewers of Blue Planet with 62% of viewers surveyed intending to change their behaviour after seeing the programme<sup>4</sup>



Website visits and 221,000 signatories for The Guardian's #keepitintheground campaign



RELX represents 63% of total citations in all academic journals and publication in the environmental science market, and 49% in energy and fuels?

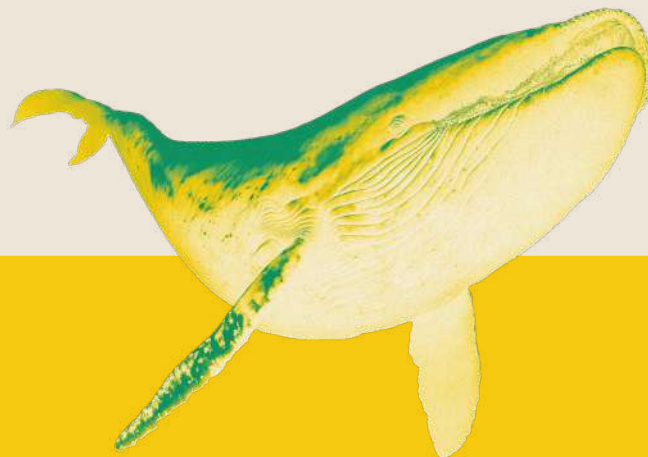


Sky Ocean Rescue reached 47.1m people, with 8m saying they've changed the ways they use at least one single-use plastic item as a result<sup>o</sup>

Figure 95: The brainprint of media, according to the Responsible Media Forum's "The Superpower of Media".

Media is under increasing pressure to recognize and act on its broad corporate responsibilities. Similarly to the advertising industry, media's pervasive influence has led to an increasing call for heightened corporate responsibility. NGOs, the public, governments, and socially responsible investors have been increasingly voicing concern about the sector's indirect societal effects.<sup>121</sup> While the media ind-

ustry itself doesn't have a large environmental footprint, its vast psychological and cultural impact makes it a key player in climate communications efforts. Rebuilding trust in media will be crucial in the years ahead in order to fight misinformation and polarization – and as the sector's influence grows, there's an emerging emphasis on the need for transparency and accountability.

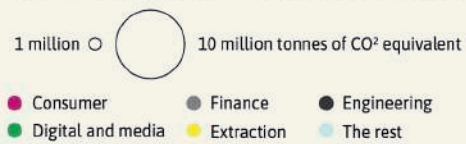


“McDonald's and Coca-Cola are in the business of putting stuff inside people's bellies, so everyone (especially the media) expects them to take responsibility for their nutritional impact. Equally, Shell and BP are in the business of taking stuff out of the ground, so everyone (especially the media) expects them to take responsibility for their environmental impact. The media are in the business of putting stuff inside people's heads. But does anyone think they take responsibility for their cultural impact?”

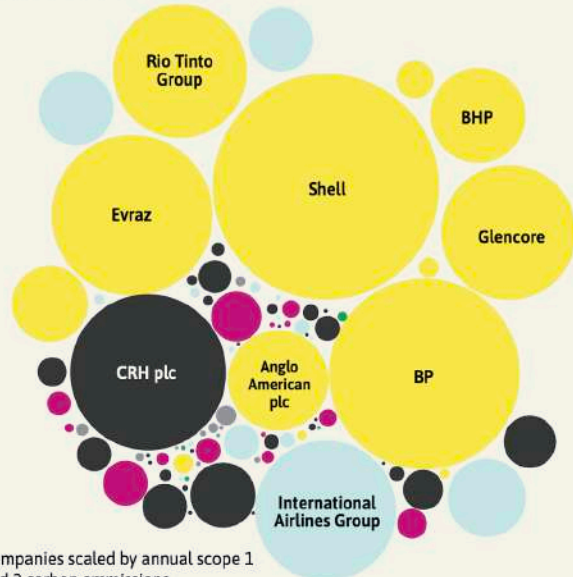
- Steve Hilton, British Commentator

The Responsible Media Forum's report analyzed the world's leading technology, media, and telecoms companies in comparison with top extractive companies. Though media companies are more substantial in revenue and employee size, their environmental footprint is significantly smaller. While it's essential for media companies to reduce their carbon emissions in line with the Paris Agreement, the sector's unparalleled cultural impact -- media's “superpower” -- has an unmatched ability to shape beliefs and behaviors at scale.<sup>281</sup>

### The FTSE 100: Carbon Footprint



### The FTSE 100



Companies scaled by annual scope 1 and 2 carbon emissions

Exhibit 3: FTSE100 companies by direct environmental footprint.

Figure 96: Direct carbon footprint of the FTSE 100 companies, according to the Responsible Media Forum's "The Superpower of Media".



## 7.RE:COMMIT

With the democratization of digital media, mass communication has evolved, allowing more voices to be heard, but also contributing to the risk of 'filter bubbles' and 'echo chambers'. To address this, media companies are working to diversify the dialogue and reach broader audiences. With regard to key issues such as climate change, the objective is to simplify complex scientific concepts for a mass audience

## 7.1 FUTURE-PROOFING THE MEDIA LANDSCAPE

and to extend the reach of these messages to all sectors of society. Media companies are also exploring new areas such as digital education and influencer culture, offering innovative ways to engage audiences. Looking ahead, the emphasis will be on developing multi-sector partnerships and reaching underrepresented audiences, in order to provide a comprehensive representation of climate action.<sup>8</sup>



## WHY MEDIA IN SUSTAINABILITY MATTERS

BY JEAN-MARC PAPIN

VP MEDIA TECHNOLOGY & DATA AT HORIZON MEDIA

The reach of the marketing and advertising industry is significant and interconnected – a complex ecosystem involving various stakeholders. Brands promote their products and services, platforms provide the means for reaching a wide audience and feedback about consumer behavior and preference. Creative agencies develop compelling content to drive conversion and consumption, and consumers engage with and respond to messages. Amidst all of it, media agencies sit at the center as the orchestrator, the touchpoint between each stakeholder – facilitating collaboration across each component. This makes the media best suited to drive systemic adoption of new practices.

### UNIQUE POSITION OF MEDIA

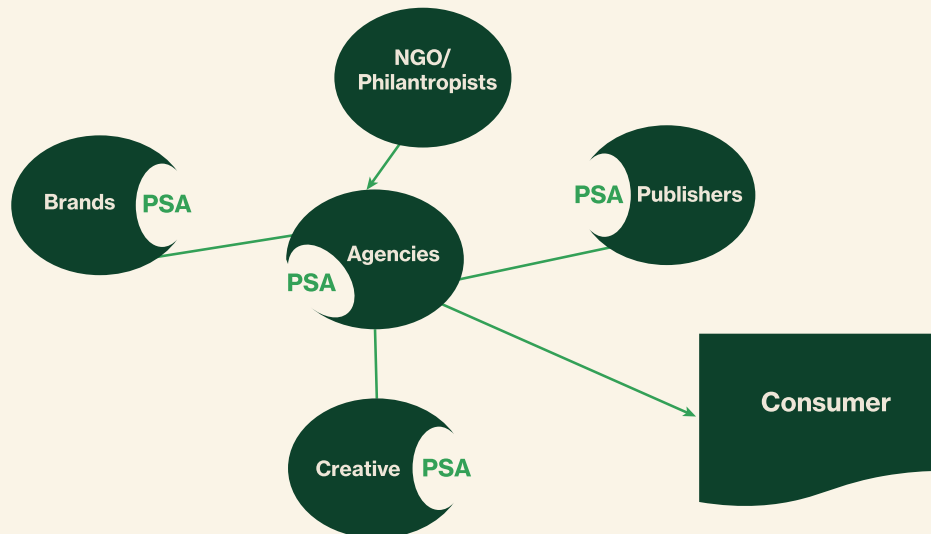


Figure 97: Public service announcements and the unique position of media.  
Source: Horizon Media

Media agencies are, by virtue of the central role they play in the advertising system, the gatekeepers of information. Relaying content to consumers, in both B2C and B2B contexts, results in the agency being in the feedback loop from their target audience – building data-driven strategies that target specific audiences and influence consumer behavior. Media agencies have access to in-depth targeting capabilities that enable brands to reach the precise subset of consumers they want. As such, media agencies can help brands to target the consumers which will be most receptive to sustainable products, services, and values from brands, fostering a shift towards more environmentally and socially conscious choices.

This central position demands a level of responsibility from media agencies to drive sustainability action among the rest of the ecosystem. Media agencies influence not only consumers downstream, but as a gateway to consumers, also wield a significant level of influence upstream in their value chain. Stipulating, for example, that the media agency will only collaborate with carbon neutral partners, provide additional in-depth reporting on sustainably developed products or services, or even donate media time to promote sustainability values, shows a willingness of the media agency to actively promote an advertising ecosystem that follows the same value-drivers that consumers are demanding in their products and services.

Like any organization, media agencies serious about sustainability must first look inward. While there are some benefits to driving sustainability, there are also some unique aspects of integrating sustainability into the values of media agencies. The position of media agencies within the broader media ecosystem means that between direct impact and indirect influence, media agencies stand to benefit significantly from sustainability programs. There are a set of opportunities upon which media agencies (and the media ecosystem as a whole) can capitalize:

	Agency	Client	Employees	Media Ecosystem
Industry leadership	Attract sustainability industry clients (green energy, EV infrastructure, mobility, etc)	Meet consumer demand for sustainable products and services	Desire to work with a company which leads its industry in important social issues	Drive the subject into the broader ecosystem and develop sustainable value chains
Differentiation	Building expertise in industry services ahead of competition	Reach specific target consumers with sustainability content	Develop a skillset which will be in high demand in coming years	Clients and consumers demanding to work with sustainable orgs
Standards	Lead in developing industry standards to be used by others	Collaborate in developing media industry standards	Opportunity to innovate in a nascent market and drive new internal standards	Lead in developing industry standards
Thought leadership	Develop intellectual property and patents for specific products and services	Increased incoming data drives further product development	Opportunity to contribute to a cause with which they strongly identify	Illustrate added value to clients across the entire ecosystem
Culture & Values	Attract top-talent who demand a sustainability-focused culture	Show consumers that they "practice what they preach" in sustainable values	Work within a company which shares their values around sustainability	Prove that a significant impact can be made within a services industry

Figure 98: Dimensions of climate change in the media ecosystem.  
Source: Horizon Media

The biggest roadblock to sustainability integrated at scale at media organizations, as it is with organizations across all industries, is the capital investments needed. But despite the initial cost, incremental value streams in the media ecosystem will present themselves. By developing key accounts and services with sustainable practices in mind, coupled with cost savings found in efficiencies, sustainable development can actually be a significant revenue growth engine for media agencies.

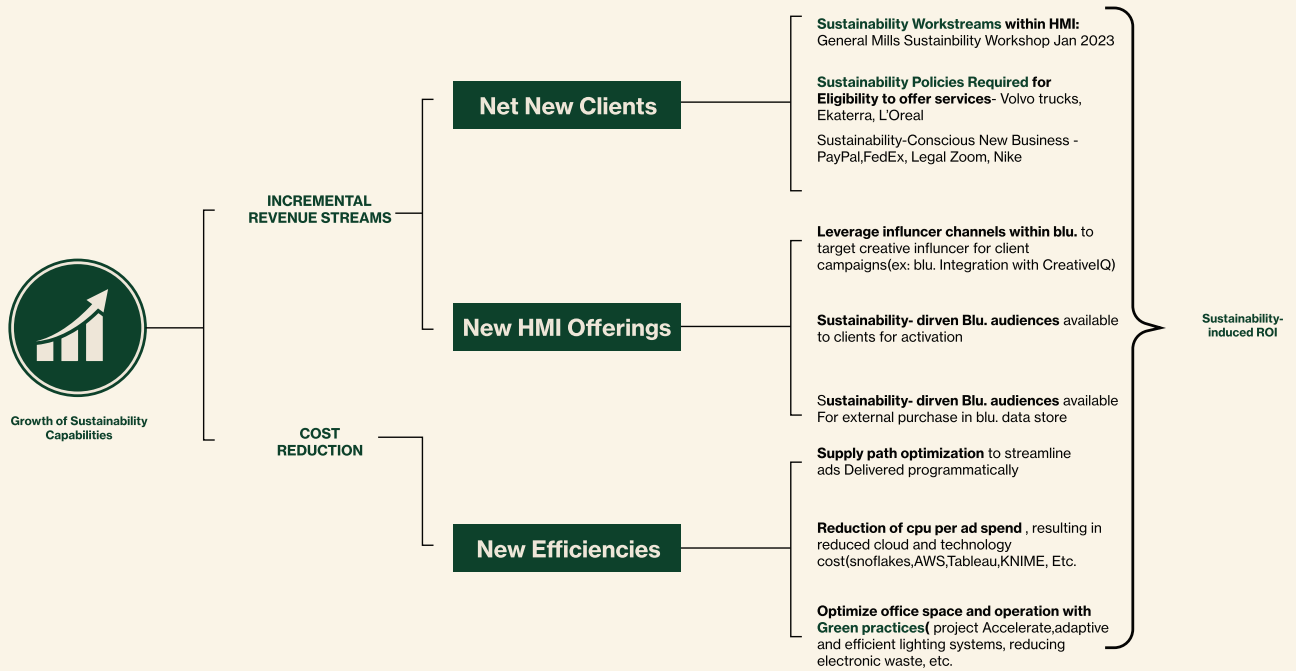


Figure 99A: Benefits to driving sustainability within media agencies.

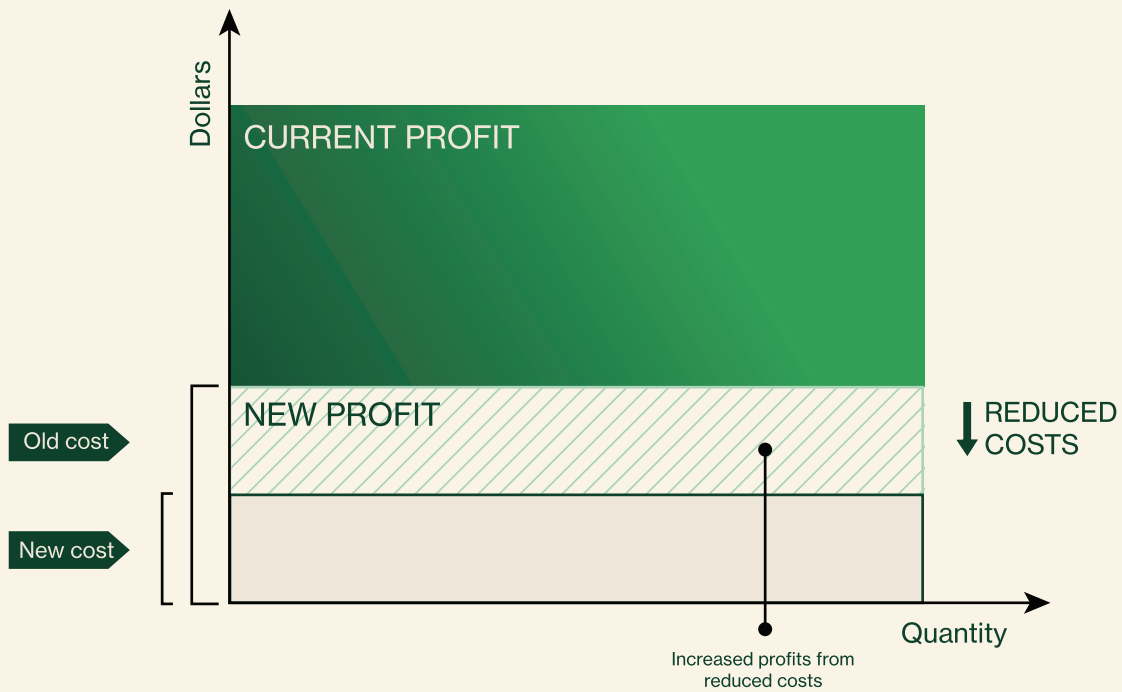


Figure 99B: Profits driven by improved sustainability capabilities of media agencies.



## 7.RE:COMMIT

Media productions can significantly drive social change, with the real measure of their impact extending beyond just audience size and engagement. Media Impact Funders “Decoding Media Impact” report highlights several high-impact media projects that have successfully influenced social issues not solely through their reach, but also by prompting action, raising awareness, or initiating policy changes.<sup>281</sup> This influence varies widely, encompassing media coverage, community action, political outcomes, and shifts in public dialogue, amongst others.

- Virunga is a documentary which narrates the struggle of park rangers protecting Virunga National Park in the Democratic Republic of Congo against a destructive oil company. The film addressed allegations of corruption, bribery, and human rights abuses, and ultimately led to action by shareholders

## 7.1 FUTURE-PROOFING THE MEDIA LANDSCAPE

- Exposure Labs, creators of Chasing Ice, organized a comprehensive campaign that influenced a US congressman's stance on climate change, demonstrating the power of targeted awareness campaigns. Their subsequent film, Chasing Coral, was key to the 50 Reefs project aimed at preventing coral extinction.

- The Ford Foundation funded an investigative reporter to expose the unsafe drinking water crisis in Flint, Michigan, eventually sparking a national scandal and significant political upheaval.

- Gasland, a documentary exploring the controversial process of fracking, elevated the global profile of the issue, leading to the creation of anti-fracking groups and policy changes, highlighting the power of film in galvanizing social change.



Virunga is a documentary which narrates the struggle of park rangers protecting Virunga National Park in the Democratic Republic of Congo against a destructive oil company. The film addressed allegations of corruption, bribery, and human rights abuses, and ultimately led to action by shareholders

Exposure Labs, creators of Chasing Ice, organized a comprehensive campaign that influenced a US congressman's stance on climate change, demonstrating the power of targeted awareness campaigns. Their subsequent film, Chasing Coral, was key to the 50 Reefs project aimed at preventing coral extinction.



### Ford Foundation

The Ford Foundation funded an investigative reporter to expose the unsafe drinking water crisis in Flint, Michigan, eventually sparking a national scandal and significant political upheaval.

Gasland, a documentary exploring the controversial process of fracking, elevated the global profile of the issue, leading to the creation of anti-fracking groups and policy changes, highlighting the power of film in galvanizing social change.



Figure 94: Examples of documentaries that report actions contributing to climate change crisis.

The measurement of media impact, particularly in the context of documentary film, involves a complex combination of methods. These might include tracking the film's festival acceptances, audience size and diversity, participation in related campaigns, use in policy discussions, and any ensuing policy or behavior change.

Such comprehensive evaluation shows that driving social change is more than a matter of broad appeal or general calls to action. It requires strategic action, compelling storytelling, fostering new narratives, and adjusting the power dynamics underpinning social relationships.<sup>282</sup>

### PSAs: AN UNDERUSED SUPERPOWER?

PSAs, or public service announcements, are messages disseminated by the media without charge – aimed to serve the public interest. PSAs played a significant role during WW1 and were used by the Committee on Public Information, which gave birth to public relations agents. PSAs also played an important role during WW2 and became more formalized during that period.<sup>283</sup>

PSAs proved effective in reducing smoking rates in the US after a federal court ordered stations to broadcast anti-smoking messages in 1969. The ruling led to the tobacco industry withdrawing all cigarette advertising on radio and TV, with Congress making tobacco advertising illegal two years after. In the 1980s, the Advertising Media Partnership for a Drug-free America (PDFA)'s "Frying Egg" PSA, aimed at tackling drug abuse, demonstrated that powerful messages for behavior change do not require expensive props or filming.



Figure 100: Public service announcement "Brain on Drugs", for the prevention of drug use.

PSAs also have a history of being used to encourage environmental protection: In 1971, Keep America Beautiful and the Ad Council partnered up to produce a powerful anti-litter PSA

featuring an Indigenous man, which won a number of awards. However, the campaign was met with some controversy as it placed responsibility for pollution solely on individuals (with its slogan “people created pollution, people can stop it”) and journalists discovered that some of the companies involved were alleged polluters themselves – raising suspicion that public service campaigns may serve the vested interests of their sponsors.<sup>283</sup>

What PSAs have helped highlight throughout their use is that society inherently stands still unless something pushes it forward. It may appear to be in a state of constant flux, but that’s because the constancy is in forces acting against the inertia of society rather than society itself and over the past few decades those forces have become more and more opposed. Where climate change – and therefore the fate of our civilization – is concerned, the stakes could not be higher.<sup>283</sup>

The technology adoption cycle – which starts with innovators and moves through a clean bell curve to trail off at laggards – can arguably be applied to any number of cultural or societal issues. Climate change is no exception to this. Broad adoption of a new cultural value takes

time, which is something that we are running out of. But we’ve seen historically how advertising can actually bridge the adoption of those values, moving holdouts towards the realm of early adoption faster by removing the fear and stigma of a shift in values.

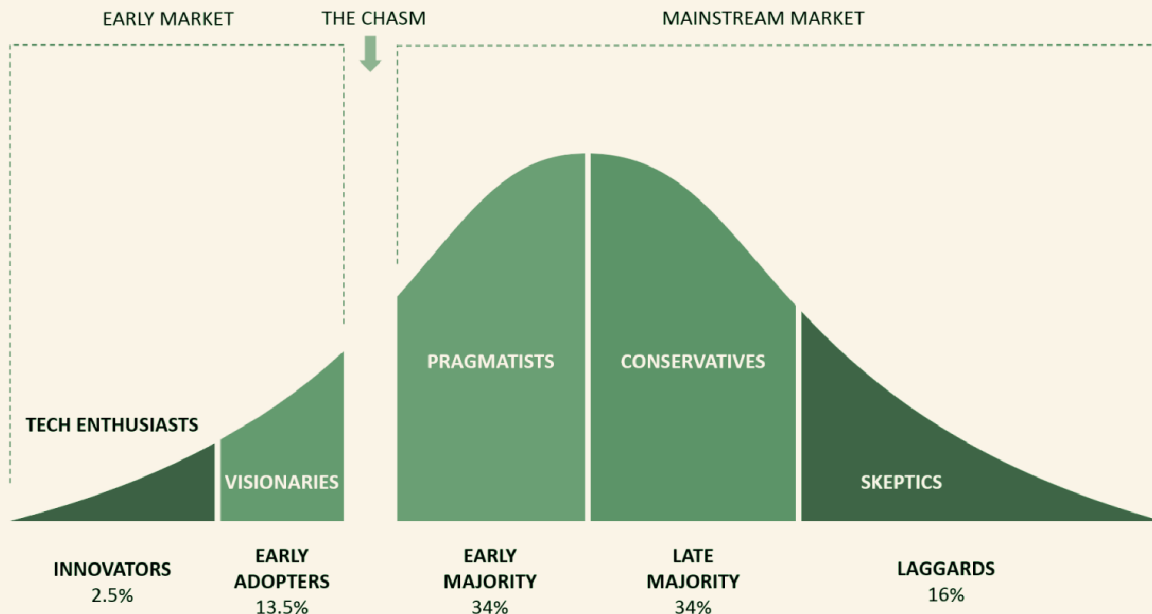


Figure 101: The technology adoption cycle. Source: de Bruin, in *Business to You*.

This is the essence of a public service announcement (PSA), those ubiquitous “The More You Know” advertisements of the 1980s or Smokey Bear telling us that only we can prevent forest fires. At their core, a PSA highlights an important societal challenge – for example, drug abuse among teens in America during the late 1980s – and then strives to influence its audience towards a behavioral change – for example, not doing drugs if you’re a teen.

Many of us probably remember the ad, and while it’s widely considered one of the “best” ads of its time, its effectiveness was severely limited by some key factors which are endemic to the majority of PSAs:

1. PSAs are notoriously underfunded, generally relying on contributions from non-profit groups as well as government funding, both of which do not come close to the same levels that corporate ad spends achieve. This results in a limited reach and frequency of messaging.
2. PSAs do not command “prime” media, that is, they generally rely on the goodwill of broadcasters and media channels who must choose between a profit-generating ad in a prime-time slot versus a PSA.
3. PSAs lack the preparatory research that many other ads and marketing campaigns receive before going to market, again as a direct result of their funding streams.
4. While some PSAs are memorable and strike a cultural chord, most fall into obscurity because their creative expression are built on the goodwill of the agencies who work on them, who – similar to the media companies placing the ads – must choose between a high-value, profit-generating client or the altruism of a PSA.

There is another fatal flaw that has made PSAs far less effective than they could otherwise be: a concept that psychologist Robert Cialdini explores in his book *Influence: The Psychology of Persuasion*, as an offshoot of his research into “social proof.” The idea is that if others are doing something, we are far more likely to do the same. PSAs – and a lot of marketing, for that matter – often focus on what a population is doing wrong, whether it’s criminal activity, forest fire apathy, or – in the case of climate change – a lifestyle of consumerism and pollution. These tactics actually lend credence, by way of social proof, that the activity is not only feasible but generally accepted. Cialdini writes of his research findings: “Within the lament ‘look at all the people who are doing the undesirable thing’ lurks the undercutting message ‘look at all the people who are doing it.’ In trying to alert the public to the widespread nature of a problem, public-service communicators can end up making it worse, via the process of social proof.”



## THE TENETS OF THE PSA 2.0

BY CHRISTOPHER MOSCARDI

VICE PRESIDENT FOR CLIENT EXPERIENCE, HORIZON MEDIA

1. **Brand-agnostic:** Today, brands are feeling an unprecedented pressure from consumers and customers to build a culture of sustainability and planetary stewardship for future generations – but they are also met with the cynicism borne of decades of advertising that drives consumerist and materialistic values. The minute people see a brand's logo or name on an ad, they know that there must be a profit in here for them somewhere.

Brands can navigate this dichotomy by taking a long-term view with their strategy, understanding that acceptance of our cultural and technological future will drive revenue for them when their products come to market. While R&D, product development, and current marketing practices all have their place in the present, I propose that brands also invest in a vision of our future that they can capitalize on later. In doing so, they lay the groundwork for adoption – not just of the societal values they espouse in their yearly Corporate Social Responsibility reports, but also of the products they are actively developing today. When those new products are ready for consumption – five, ten, even fifteen years into the future – the public is prepared to adopt and choose them more readily. Therefore, brand names, logos, partnerships, and overall involvement is not recognized in the advertising strategy.

2. **High production quality and prime media placement:** Both of these requirements point squarely back to the need for preparatory research, and therefore funding. Any strategy effective in shifting cultural and technological adoption of new concepts will be limited by a lack of access to the same outlets and quality that corporations put into their own advertising campaigns.

Creative and media agencies need to collaborate with a set of guidelines for how PSA content should be produced and distributed – allowing for the large majority of either public or brand funding to go towards production quality and media placement. Media agencies play a unique role, as they are the gatekeepers between the creative concept and its audience. If media agencies agree to bring the next generation of the PSA into prime time, then this next generation of public service announcements can be vastly more effective than its predecessors. Funding from individual contributors and brands must match or exceed that of corporate campaigns to allow for the same quality and media access and a collective of creative and media agencies should be established to coordinate the best possible outcomes.

3. Illustrate an adaptive utopia: Adaptive utopia might not be a familiar term, but it touches on two very important elements of any communications about our future: First, we need to acknowledge the necessity of adaptation. It's an unfortunate reality that we are beyond the point of stopping climate change – its effects are being felt across the planet already. That's where utopia comes in – because adaptation does not necessarily mean a breakdown of our society. Change is hard and scary, but it can end in something wonderful. Utopia is a lofty goal, but we want people to feel like there's something worth striving for, worth adopting, and worth accepting into their lives.

An adaptive utopia is akin to a realistic utopia – it won't be perfect, but it will allow us to continue to thrive as a species. The next generation of PSAs do not use fear-based tactics to drive adoption – rather, they rely on social proof to point not to the future we might get – but to the future we want.

Social media is one key avenue that can be used to spread messages far and wide. It is a powerful tool for increasing climate change awareness when effective framings are connected to calls for action.<sup>284</sup> Social media platforms have immense potential to mobilize especially young people – many spend hours on apps like TikTok, with the average user opening the app 19 times a day and spending around 75 minutes on it<sup>285</sup> – double the amount of the average Instagram user. By telling stories of success to build people's sense of self-efficacy, using creative imagery and values-based messaging, social media is a promising medium to engage younger audiences in a meaningful way. In any social media strategy, climate change narratives should be designed to fit people's identities (such as location, occupation or political orientation). The most important ingredient, however, is the use of trusted sources – in particular, peer-to-peer communication, utilizing spokespeople the target audience identifies and resonates with [\(see 4\)](#).



### 33SECOND'S 'EARTHTOPIA' COMMUNITY ON TIKTOK

The creative communications agency has built a successful community with a 12% engagement rate (double TikTok's average) through a mix of good news, eco-hacks and trends – tackling doomism and highlighting what is possible when people take action. Earthtopia showcases solutions, organizations and actions that are having a positive impact on the planet. Recognizing that scientific data can be hard to digest, the team breaks down complex information into bite size chunks, followed by tangible action their audience can engage in every day – from sustainable food hacks to shopping in a more climate-friendly way.<sup>286</sup>

Social media has emerged as a key strategy in advocating for sustainable practices and advertising sustainable products, with hashtags like #zerowaste attracting millions of followers. The rise of influencers in this digital era is particularly noteworthy – their reach and influence have been incredibly effective in shaping consumer preferences and behavior. The value of influencers lies in their ability to strike a balance between informing, educating, entertaining, and promoting sustainable consumption. Smaller influencers, or "micro" and "nano" influencers, have also gained popularity with brands as their smaller but engaged communities value their authenticity. Sustainability influencers have promoted a shift from consumerism to a sustainable mindset of 'less is more' – their dual role of educating consumers and promoting eco-friendly products presents a significant opportunity for brands to reach their target audiences more effectively.<sup>1</sup>

By using principles of the PSA 2.0 outlined above, and channeling impactful messages through social media to reach younger audiences, media can learn from past mistakes and drive meaningful action using its Brainprint – its

communication superpower which has so far been underused in the fight against climate change. But media is not the only industry we rely on to supercharge climate communications – we urgently need marketing and advertising on board, too.



## 7.2 THE BUSINESS CASE FOR SUSTAINABILITY

Climate change could cost the global economy

**US \$178 trillion**  
over the next 50 years.

By 2030 there will be over

**700 million** climate refugees.

Biodiversity loss is already costing the global economy

**10%** of its output each year.

Estimated economic cost of land degradation is more than

**10%** of annual global gross product

More than half of the world's GDP – an estimated

**\$44 trillion** of economic value generation is moderately or highly dependent on nature and its services.

More than half of the world's food comes from just three staples – rice, wheat and maize – which already suffer annual losses of up to

**16%** of total production (valued at \$96 billion) due to climate-change and invasive species

**And the list could go on and on. There is no business on a dead planet.**

Figure 113: Cost of climate change in the global economy, biodiversity, populations and food systems.

Today, there's a strong business case for sustainability. Market trends show that especially young consumers are becoming more environmentally and socially conscious. Businesses that prioritize sustainability will likely have a competitive edge in the future and stay relevant in the long term. Sustainability is not just an ethical choice – it's a smart business strategy.

Purpose in business is gaining increasing importance, as highlighted by a survey where the number of CEOs prioritizing purpose and its

connection to strategy for long-term value creation rose from 34% in 2021 to 64% in 2022.<sup>287</sup>





## 'Purpose' can be defined through four models:



**Profit-centric purpose**  
emphasizes maximizing shareholder returns and profit



**Surface purpose**  
firms signal their commitment to purpose without truly integrating it into their actions



**Transitional purpose**  
firms are committed to purpose, but are cautious about communicating such efforts until they are more deeply integrated into company strategy and behavior



**Deep purpose**  
organizations fully embrace their purpose as it aligns with their existence, identity, and strategy for creating stakeholder value. However, it's worth noting that the 'surface' and 'transitional' purpose models are not indicative of long-term stability<sup>171</sup>.

Figure 85: Definition of purpose in business. Source: Blocker et al, 2023.



## Today, almost 90% of world economies are by Net Zero targets

According to South Pole's 2022 Net Zero survey with sustainability leaders in business, more Net Zero targets are being set than ever before, with an increasing number of science-based emission reduction targets to back them up.

### Sustainability is good for business:

**43%**

of surveyed companies believe Net Zero is a chance to lead and define the climate action space through positioning their brand

**32%**

see Net Zero as a way to keep up with competitors' climate targets

**23%**

see Net Zero as a way to manage reputational risk

Figure 102: Benefits of sustainability for businesses. Source: South Pole Report.

While "green" products are rapidly rising in popularity, it's crucial for brands to move beyond greenwashing. While the rise in purpose-driven marketing is promising, it needs to go beyond catchy slogans and reflect a company's commitment to real change. These findings indicate

that the public has a good understanding of which sectors are prioritising climate change, and which are failing to address it adequately. A promising 66% of people think companies should stop advertising products or encouraging activities that are bad for the environment.

## According to Trust Barometer data

# 64%

of people worldwide think businesses are doing mediocre or worse at keeping their climate commitments

# 41%

trust CEOs to tell the truth on climate change and actions that should be taken.

# 57%

say renewable energy is among the most trusted industry sectors to do what is right in addressing climate change.

These findings indicate that the public has a good understanding of which sectors are prioritizing climate change, and which are failing to address it adequately. A promising 66% of people think companies should stop advertising products or encouraging activities that are bad for the environment

Figure 103: Perception of people and workers regarding climate commitments and trust in different sectors. Source: Trust Barometer 2022.



# WHY SUSTAINABILITY AND CLIMATE SHOULD BE BAKED-INTO EVERY BUSINESS, EVERY BRAND, EVERY MARKETING CAMPAIGN

BY TOM STEIN

CHAIRMAN AND CHIEF BRAND OFFICER AT STEIN IAS

This is not a drill: When an emergency is declared, there isn't much need (or time) for 'nice-to-haves'. You grab only what you need. You take decisive action. You try to fix the problem. For much of my career working with different brands in different categories, my suspicion is that for many companies, 'sustainability' has always been one of those 'nice-to-haves', sometimes an 'ought-to-have' - taken seriously, for sure, but it was never driving the agenda.

Well, that's changed. And how. A [climate emergency has been officially declared](#) in 2,351 jurisdictions covering over 1 billion people around the world in 40 countries.

The cumulative impact of business is the single largest force to drive real change. Brands have enormous leverage through their supply chains, their NPD programs and their influence on consumer behavior and culture. They have the ability and the energy to reshape the economy faster than governments can through legislation. The leadership, entrepreneurship and innovation that is at the heart of any business places them in a unique position to create lasting societal change quickly and effectively.

Climate change - and our response to it - is redefining us. Redefining how we do business, how we engage with consumers, how we take responsibility for changing the consumption culture, and ultimately whether we will be in business at all in the future.



So, what ought to be the response from brands and businesses? If sustainability, resilience, net-zero and decarbonization have not been elevated to the Boardroom, are not now driving the business, investment and communications strategies, they should be. And there are four very good reasons why:

1. Sustainability is a means of managing risk. And there are lots of risks. The risk of significant supply-chain disruption. Companies already adapting to a zero-carbon future have been shown to be much more resilient: better prepared for new regulatory frameworks; better positioned to manage short-term economic shocks; better insulated from spikes in fossil fuel prices; they have a more diversified supply-chain with equally well-prepared suppliers. The risk of divestment - investment moving out of high-carbon businesses and sectors. Companies with a clear climate action strategy are seeing the benefit of investor prioritization. The risk from the 'conscious consumer' adopting climate-informed purchasing decisions in favor of those businesses who can point to the action they are taking. The risk of non-compliance. There is significant risk to unprepared businesses from climate mitigation policies set by Governments & Cities - such as new regulations, punitive tax levies for non-acting corporates, and tightening restrictions on environmentally unfriendly corporate behavior. And finally, the risk to your talent base. Pressure to act is increasingly coming from within organizations. Motivated employees want to work for sustainable businesses. Without a clear and compelling sustainability strategy, companies find it hard to attract and retain the best talent.
2. Sustainability is a competitive advantage. "Every purchase is a vote on what kind of future you want". For any brand, this must be

- a serious wake-up call: the so-called 'conscious consumer' voting at the point of purchase, making decisions between brands based on their reputation for sustainability and climate action. The data differs by market, but the two demographics most likely to engage in this kind of climate-conscious brand selection are the 'gray market' 55yrs+ (the ones with all the money), and GenZ (the ones who will soon be in charge). Your competitors are already committed to climate action & evolving fast. The risk of not acting will see them gain significant competitive
3. advantage and market share at your expense.

- Sustainability is a growth opportunity. The transition to a zero-carbon economy is well underway - the pace of change is accelerating faster than anyone predicted. Across every sector and system, fundamental change is evident: in product development & supply chains; in consumer demand for sustainable products & services; in the roll-out of low-carbon technologies at scale; in investment flowing away from high-carbon businesses; in culture, creating an expectation amongst consumers for environmental transparency. This is reshaping whole sectors, creating new markets, new jobs - rapid change is opening up significant commercial opportunities for those businesses that are ready to seize them. Brands who are not
4. already moving risk being left behind.

Sustainability is a human (and therefore corporate) responsibility.

Policy and legislation alone cannot bend the climate curve. We will not decarbonize the economy fast enough without the full engagement of business, brands and their customers. This is a responsibility that transcends profit & loss.

Today, almost 90% of world economies are covered by Net Zero targets.<sup>288</sup> According to South Pole's 2022 Net Zero survey with sustainability leaders in business, more Net Zero targets are being set than ever before, with an increasing number of science-based emission reduction targets to back them up. Sustainability is good for business: 43% of surveyed companies believe Net Zero is a chance to lead and define the climate action space through positioning their brand, and 32% see Net Zero as a way to keep up with competitors' climate

targets, while 23% see Net Zero as a way to manage reputational risk.<sup>92</sup>

The bigger picture, however, is stark: of 68,000 companies around the world, only 7% have set a Net Zero target, compared to 87% of climate-aware companies (67% of sustainability leaders have a Net Zero target as well as science-based targets).<sup>289</sup> However, nearly a quarter of organizations are not publicizing data on their progress<sup>92</sup> – a practice termed Greenhushing ([see 2.2](#)) – and this lack of transparency could impact companies' long-term growth.

## THE FUTURE OF BUSINESS IS SUSTAINABLE

BY JEAN-MARC PAPIN

VP MEDIA TECHNOLOGY & DATA AT HORIZON MEDIA

Transformation of any industry is driven almost exclusively by financial incentives, and sustainability is no different. For decades, companies have argued that investing in sustainable development does not yield the return on investment necessary – especially considering the significant capital expenditure often required to initiate and sustain programs, products, or services that meet sustainability benchmarks.

However, this is quickly becoming an outdated mode of thinking – in fact, the opposite is proving to be true. Investment in sustainability across almost all industries has been shown to increase financial performance in myriad ways, having been built on the foundation of several important trends: the growing demand from consumers for responsible growth in the brands they support, the increasing expectation of companies to adhere to corporate social responsibility guidelines, and the rise of Environmental, Social, and Governance (ESG) considerations.

Globally, consumers have become increasingly conscious of the environmental and social impacts of their purchasing decisions and have slowly come to the realization that the power of those decisions can in fact drive company values. According to a 2021 survey of 27,000 consumers across 12 countries by information management company Open Text, most consumers – an average of 81% across Japan, India, North America, and Europe – are willing to pay a premium for products and services which are ethically sourced and produced.<sup>290</sup> This growing demand presents an opportunity for companies to capture market share and drive revenue growth. The rise in consumer demand for sustainable products and services can also open new revenue streams for companies to expand into previously untapped audience segments.

## HBR case study: Lipton sustainable marketing campaigns increased market share by 1.5 - 2% dependent on country



Figure 112: HBR Case study - Lipton sustainable marketing campaign increased their share by 1.5-2%, depending on the country.

Beyond the consumer market, sustainability has gained significant traction in B2B relationships. A company's Corporate Social Responsibility (CSR) practices – and their associated annual reports – have become a critical factor in many organizations' choice of suppliers and partners – again, driven ultimately by consumer demand at the end of the value chain.

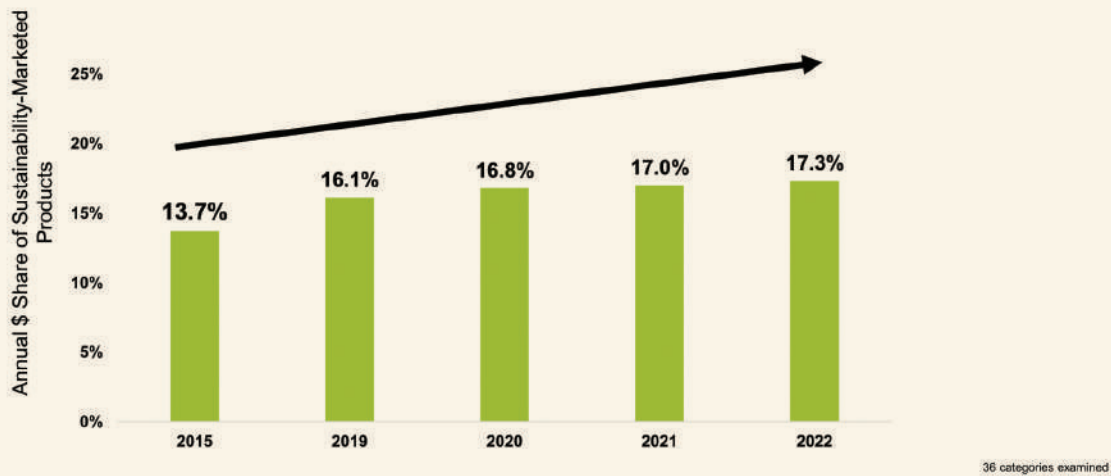
According to Harvard Business School, 90% of companies on the S&P 500 index published a corporate social responsibility report in 2019, which includes reporting on sustainable development initiatives.<sup>291</sup> By aligning with environmentally responsible and socially conscious organizations, companies experience a "halo effect" – enhancing their own credibility and reputation by association with a recognized sustainable partner – attracting new B2B customers and ultimately increased revenue through new client acquisition and expanded market reach.

Sustainable practices can drive direct revenue growth for many companies – research shows that sustainable products and services have outperformed overall company revenues. Perhaps most notably, companies investing in more sustainable practices see a rise in efficiencies and a subsequent reduction in cost – making the case for prioritizing sustainability across the board.

Research by the NYU Center for Sustainable Business highlights steady growth in the market for sustainability-marketed products, which now hold a 17.3% share – up 3.6% since 2015. These products have outpaced non-sustainable counterparts, growing twice as fast and contributing one-third of all Consumer Packaged Goods growth. The study also shows that sustainable products feature a

28% price premium on average compared to traditionally marketed counterparts. There's an increasing number of new products with sustainable benefits, with a larger market share online. Upper income, millennials, college-educated, and urban consumers are more likely to buy sustainable products, and availability has been found to strongly correlate with market share.<sup>292</sup>

Sustainability-marketed products continues to **grow share despite high inflation**



Sustainability-marketed products grew **~2x faster** than conventionally marketed products

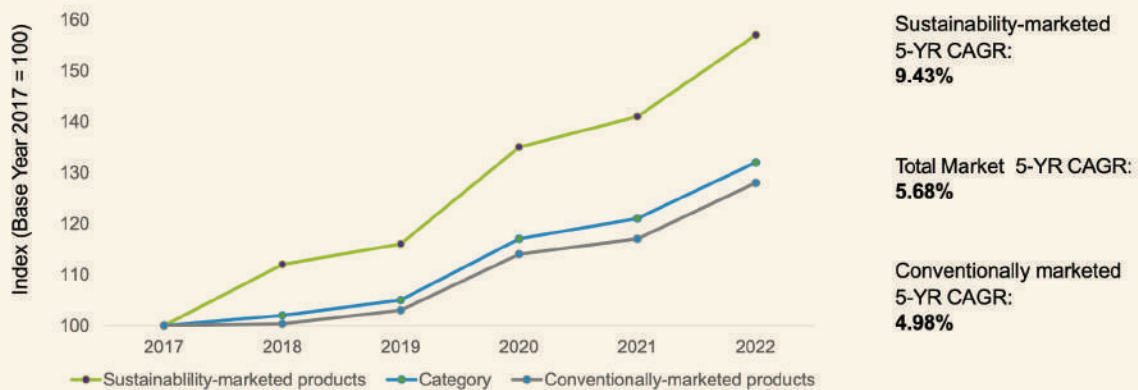


Figure 107 A and B: Growth of sustainability-marketed products, which grew about 2% faster, when compared to conventionally-marketed ones, even against inflation. Source: NYU.

## BRANDS NEED TO WALK THE WALK

BY ANNA MCSHANE

GREEN CLAIMS LEAD AT THE CARBON TRUST

It's important to walk the walk before talking the talk. Companies need to put in the work to address their environmental impacts before communicating publicly. Third party assurance is a useful tool that allows companies to confidently communicate their climate action. By getting your data checked and verified by a third party expert in accordance with international standards, such as PAS 2050 or ISO 14067, companies – and their consumers – can be reassured that the numbers have gone through a robust audit.

The Carbon Trust provides independent verification and assurance services. With over 20 years of carbon expertise, we help companies move beyond a simple verification or methodology approval and seek to evaluate the credibility of the data and how it should be interpreted to inform future decision making. Our expert sustainability communications team can advise you on the strongest message and approach to external communication, such as through our leading product carbon footprint label or Route to Net Zero Standard.”

Globally, 64% of people think businesses are doing mediocre or worse at keeping their climate commitments, and only 41% trust CEOs to tell the truth on climate change and actions that should be taken. However, 76% say renewable energy is among the most trusted industry sectors to do what is right in addressing climate change. These findings indicate that the public has a good understanding of which sectors are prioritizing climate change, and which are failing to address it adequately. A promising 66% of

people think companies should stop advertising products or encouraging activities that are bad for the environment.<sup>6</sup>





**More than 50%**

of consumers are likely to purchase from companies committed to sustainability.

**69% of consumers**

think that businesses have a responsibility to reduce their environmental impact.

**65% of consumers**

think it's important that brands should act on sustainability, rather than just talk about it

**67% view**

brands more positively if they use renewable energy

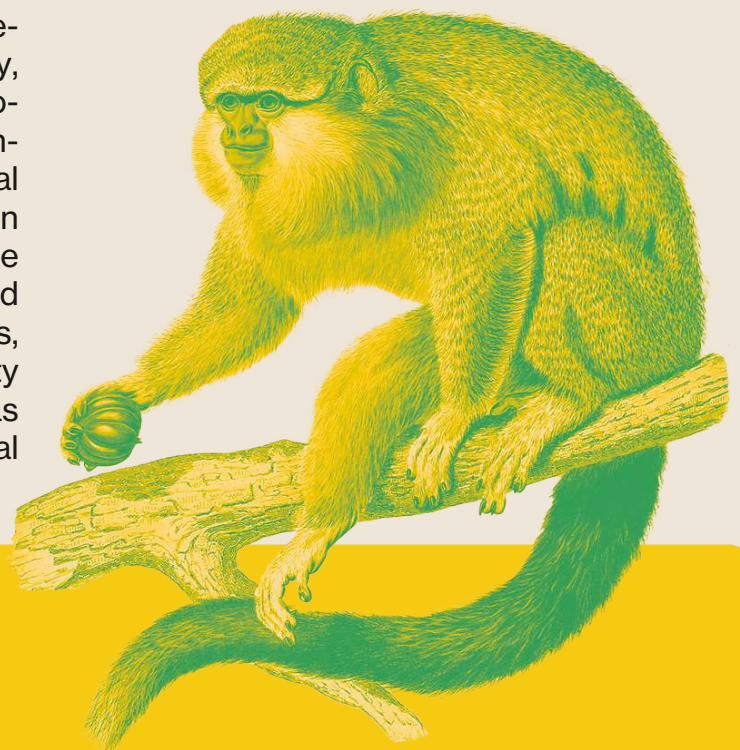
**Gen Z and Millennials**

feel most strongly that businesses have a responsibility to reduce their environmental impact

Figure 108: Consumers' perspectives on the role of brands in sustainable practices.

Source: Viant.

Sustainable Brand Index, Europe's largest independent brand study focused on sustainability, demonstrates that consumers across the European continent continue to prioritize sustainability, despite economic challenges and global crises like the COVID-19 pandemic, the war in Ukraine, and an escalating energy crisis. The study interviewed 80,000 consumers and examined 1,600 brands across 36 industries, and found that understanding of sustainability has expanded to include concepts such as democracy, safe communities, and mental health.<sup>293</sup>



## PUSHING THE BOUNDARIES FOR A SUSTAINABLE FUTURE

BY KAREN LAND SHORT

GLOBAL EXECUTIVE CREATIVE DIRECTOR AT ACCENTURE SONG

It's an all hands on deck moment. Whether it's a dedicated group or not, everyone should be pushing the boundaries on what's possible at the intersection of sustainability and relevance. There are things to know to play effectively, creatively and without backlash. It's a complex, fast-moving space. Ideas will need more deep knowledge and expert backing. So it could mean creating a dedicated group or hiring sustainability experts, sustainability leadership, or partnering with the broader sustainability community. The closer the relationships, the better. I believe we're entering an age of unparalleled cross-pollination. It's out of necessity and urgency but also because it will lead to amazing stuff.

However, there is also a growing disconnect between companies' sustainability claims and consumers' understanding and trust of those claims. Many consumers express skepticism about greenwashing and vague sustainability promises – demanding more transparency and authenticity. The 2023 data indicates a consistent or growing interest in sustainability discussions among consumers in Sweden, Norway, Denmark, Finland, and The Netherlands, despite some variation between countries.<sup>293</sup>



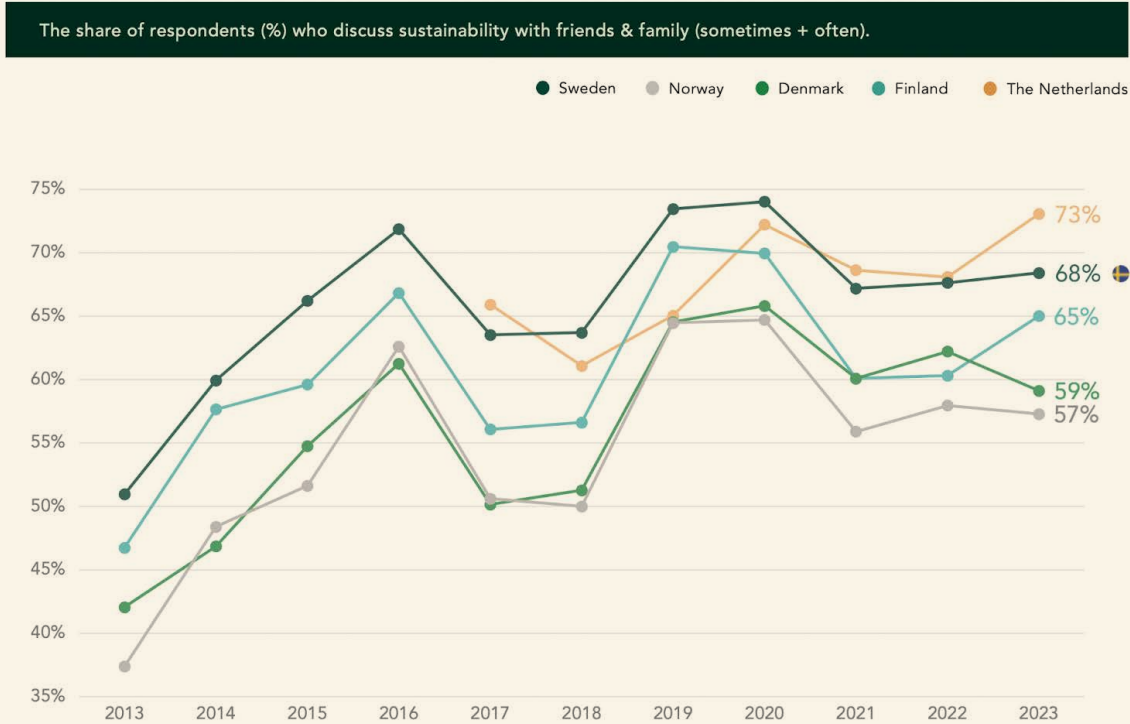


Figure 110: Share of participants who discuss climate change sometimes or often with family and friends. Source: Sustainable Brand Index.

Sustainable Brand Index<sup>293</sup> identified four different behavioral groups based on how consumers relate to sustainability, how they act in different situations, as well as underlying structures in attitudes:

- **EGO:** predominantly male, highly values personal and local concerns and holds traditional views. Previously disinterested in sustainability, this group now shows signs of embracing it – especially when sustainability messages align with their priorities like cost and health – but they prefer these messages to be subtly integrated rather than overt.
- **MODERATE:** Majority of the population, generally appreciates the status quo and follows trends rather than initiating them. Moderately interested in sustainability, they prioritize quality, function, and price of products, and are more likely to adopt sustainable practices

when it's trendy, normative, or attracts positive social attention

- **SMART:** actively engage with sustainability, want to marry personal benefits with environmental ones, but don't prioritize sustainability above all else. They seek information actively and view choosing sustainable brands as part of their lifestyle, making everyday choices that balance their needs and the planet's wellbeing.
- **DEDICATED:** typically younger and urban, the most knowledgeable and interested in sustainability, consciously incorporates it into every consumption decision. They hold high expectations for companies' sustainability efforts and aren't hesitant to voice their opinions. They often undertake thorough research and are skeptical of information coming directly from companies themselves.

**EGO**

Cares somewhat about sustainability, but without necessarily using the word sustainability.

**MODERATE**

Follower – believes that sustainability can be rather interesting, especially when it is trendy.

**SMART**

Curious & interested in sustainability, but always with a “what’s in it for me?” perspective.

**DEDICATED**

Passionate & well-informed on sustainability.

Figure 111: Four different behavioral groups based on how consumers relate to sustainability, how they act in different situations, as well as underlying structures in attitudes.  
Source: Sustainable Brand Index.

The International Chamber of Commerce, a leading global trade body, sets forth a number of guidelines for responsible environmental marketing communications in the advertising industry ([ICC 2021](#)), including:

- Environmental claims must have a sound scientific basis
- Avoid exaggerating the environmental benefits of a product (for example, claiming that a product now has “twice as much recycled content as before” when the amount was very low to begin with, or claiming that a product “does not contain” a certain chemical when it never contained it in the first place).
- Avoid claims that imply that an improvement is more significant than it is (for example, claiming that a product was made with 30% less carbon emissions when carbon emissions only make up a small fraction of the product’s total greenhouse gas emissions)
- Avoid general claims such as “environmentally friendly”, “green”, “ecologically safe”, “climate smart” or “sustainable” (implying that a product has no impact) without a high standard of proof
- Consider that consumers may also expect broader social responsibility (e.g. fair working conditions) of marketers making sustainability claims
- Be wary of calling a product “recyclable” if recycling may not be widely available
- Avoid vague claims about decarbonization goals, for example ones that only concern direct operations, but not emissions from products’ lifecycles (‘scope 3 emissions’). Where decarbonization goals are set, marketers should provide proof that meaningful steps are taken towards that goal

According to the Sustainable Brand Perception Index, which surveys over 100,000 respondents across 36 countries, sustainability plays a role in consumer decisions in some industries more so than others. But the overall trend is clear: Sustainability plays a big role in influencing brand perception and consumer choice.<sup>294</sup>



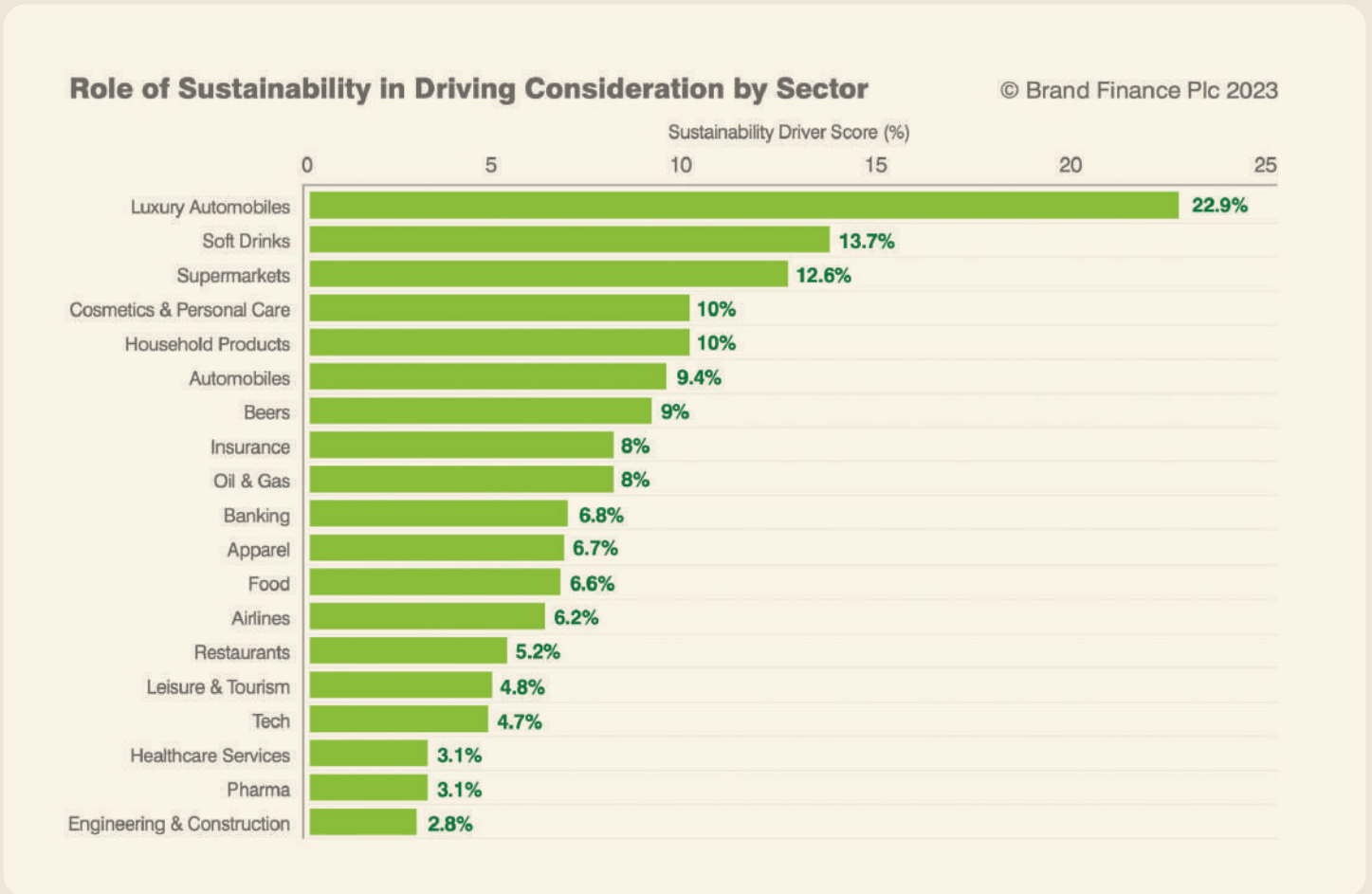


Figure 115: Role of Sustainability in Driving Consideration, by sector. Source: Brand Finance.

Sustainability was segmented into Environment, Social, and Governance (ESG) components to distinguish between different areas of consumer decision making. Findings indicate that the Luxury Auto sector stood out, with sustainability accounting for a 22.9% impact on brand value. Despite their association with high fuel consumption, luxury auto brands highly benefit from a sustainability reputation. Following closely, sectors like soft drinks (13.7%), supermarkets (12.6%), media (10.1%), and cosmetics (10%) also show significant sustainability-driven influences. While the Household Products and Media sectors both had 10% sustainability driver scores, their underpinning factors varied significantly – with the environment playing a bigger role for household products, and supporting communities and wider society being a driving factor for media consumer decisions.<sup>294</sup>



## WHY BRANDS SHOULD PRIORITIZE

BY JILLIAN GIBBS

FOUNDER & CEO AT APR, AND TRACI DUNNE, GLOBAL DIRECTOR OF INDUSTRY RELATIONS (ADVERTISING PRODUCTION RESOURCES)

Across APR's 75 Fortune 500 marketing clients, we are seeing Sustainability climbing high on strategic agendas under the ESG banner – in many cases progressing from the morally driven 'right thing to do' bucket into a business imperative. This shift in focus is being driven by the dire need to address climate change, but also by consumer purchase behaviors. There is an abundance of stats demonstrating a consumer shift to buy from companies who care about sustainability, which is a compelling argument for most organizations.

As a result, there is a continuing rise in organizations setting Net Zero targets. However, for organizations to meet those targets, scope 1, 2 and 3 emissions all need to be measured, reported, and validated. As production consultants, it is our role to ensure clients are aware of their responsibility for scope 3 emissions – which includes marketing and production – and to help them take a considered approach to tackling initiatives that influence creative production.

**Profitable growth companies are investing their attention and financial resources differently in five major ways:**

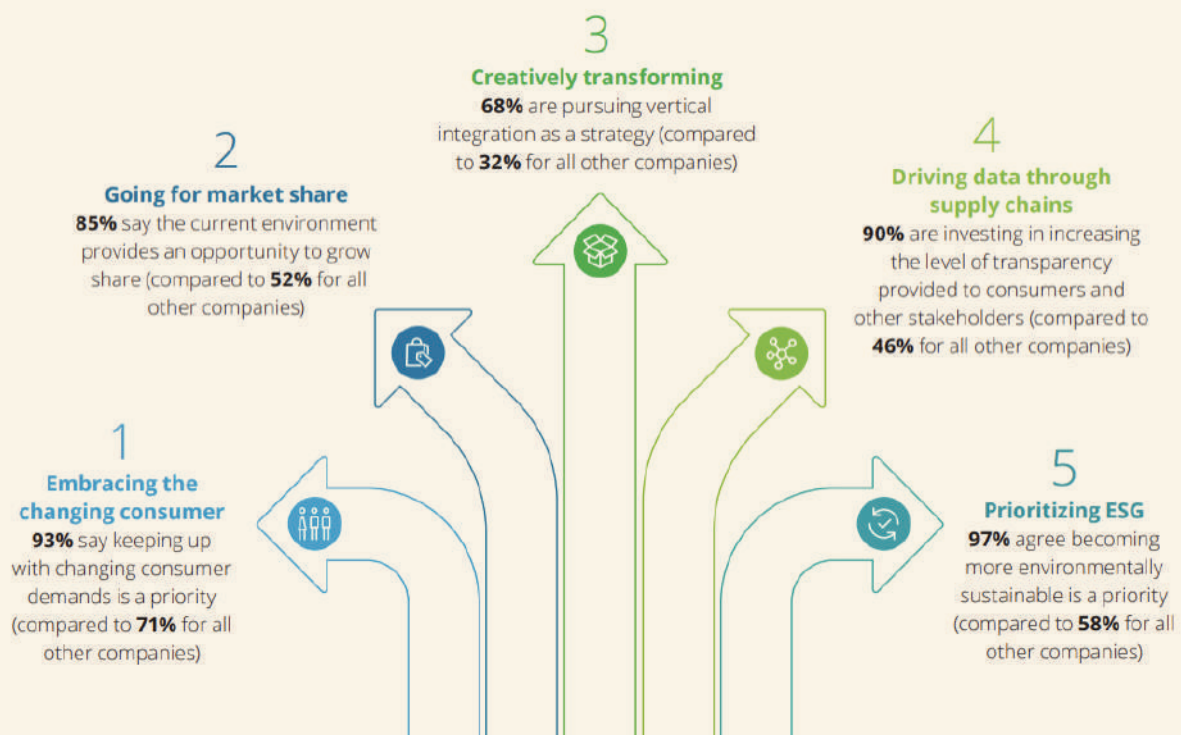


Figure 104: Five major ways profitable growth companies are investing their attention and financial resources differently.

Source: Deloitte 2023 Consumer Products Industry Outlook

The key to any carbon reduction strategy is data, and as one of the founding members of the AdGreen Project – responsible for launching a Carbon Calculator specifically for advertising production – APR is delighted that the industry now has the ability to track and measure the carbon footprint of productions and drive essential behavior change. We believe that those who have embraced the calculator early will find themselves in a favorable position as they approach their target completion date, being able to obtain the data they need to satisfy Net Zero reporting requirements. The aggregated data from the AdGreen calculator indicates that Travel & Transport continue to be, by far, the largest contributor to the carbon footprint of a production (upwards of 64%) – which further supports our belief that fundamental behavioral change is required across our industry. Before we hop on an airplane to fly to a shoot, we need to stop and consider alternatives. Before we award a job to a Director or Photographer, we need to understand the carbon footprint of that bid.

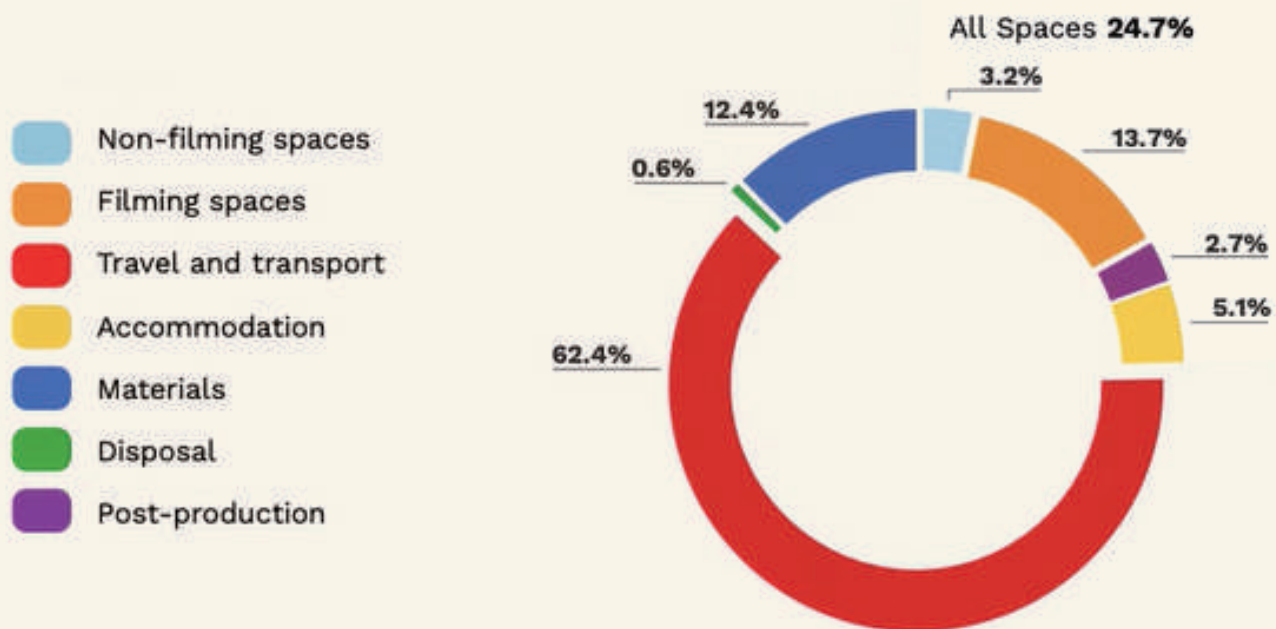


Figure 105: Activities that have the highest impact in the carbon footprint.

Source: Adgreen Annual Review 2023

We recognize the pivotal role advertising and production industries have to play, and wholeheartedly agree with New Zero World's view that as a connected collaborative, we have the capability to drive unprecedented industrial and societal change.

Yet, there is still a lot of work to be done. As 'Production Optimists®' we see this new reality presenting huge opportunities for our work with our clients, such as introducing and maintaining sustainable production practices, tracking data to improve behaviors, setting measurable targets, and enabling Marketing and Production to contribute to ESG Targets by introducing structured, data-driven programs.



While there may be an organizational desire to implement sustainable practices, in reality, most brand teams are at the beginning of their journey. Often lacking the capacity or knowledge on how to get started, brands are turning to experts like us to help them navigate this complex area. From a production perspective, we have five simple measures to understand how to get started:

- **Eliminate carbon during creative development:** Shooting a scene on a snowy mountain slope halfway across the world could be re-imagined without sacrificing the quality of creative work. Alternative production approaches, such as Virtual Production, can have a big impact on reducing carbon emissions. Virtual shoot attendance, as we learned during the COVID-19 pandemic, is also an option.
- **Energy Choices:** Choose 100% renewable energy when feasible for both carbon reduction and cost-effectiveness. Using electric or hybrid transport and no-idle policies can make a major difference.
- **Engage Partners:** Carbon reduction requires evaluating the production chain and clear client-led expectations. Without clarity from brands, progress with creative partners lags.
- **Recycle diligently:** Productions create a huge amount of waste from catering to materials - much of which can be re-homed instead of heading to landfill. Think about donating food, and reusing or repurposing set pieces, using recycled materials is also a great way to create a re-use circle.
- **Offset emissions cautiously:** Only after all efforts to be carbon-neutral have been made should offsetting be considered; it's a temporary solution for Net Zero targets. Offsetting can be cost-effective, and trusted partners are available through industry associations.

For companies to set successful targets, they need to not only ramp up science-based strategies in all operations, but also support collective resilience by also focusing efforts on biodiversity, as well as incentivizing investments in future climate innovation.<sup>92</sup> Many companies' business models are already redundant, and a shift towards prioritizing ESG will be crucial. While many businesses haven't picked up on this just yet, advertising agencies certainly have.



## TRANSPARENCY IS KEY

BY ADAM LAKE

HEAD OF COMMUNICATIONS AT THE CLIMATE GROUP NORTH AMERICA

Climate Group was founded in 2004, on the firm belief that you can't tackle climate change without meaningfully engaging the private sector in what needs to be done. Since, the central role of communications in accelerating the drive to Net Zero across business and government has evolved at pace. Our vision was to work with businesses and subnational governments to find solutions using an atmosphere of positive, constructive competitiveness to continually raise the bar. We then translate these solutions into easy-to-understand public narratives, which can transform how climate issues are communicated by corporations and governments.

Climate Week NYC started as a platform for businesses and governments to share climate progress, and has blossomed into the world's largest annual climate event. This expansion has reflected a shift in corporate engagement, from 'business to business' to a 'business to consumer' approach. In the past, climate conversations were confined to company communications and small sustainability teams. Now, we're seeing a broader company-wide and public involvement in these important discussions.

As the myth of sustainability being a cost to business was dispelled and opportunities for efficiency, risk mitigations and profitability began to take hold, a much broader range of business leaders started to take more interest in the role climate action can play in their long-term business strategy. This was twinned with a major shift in public awareness of climate change, boosted significantly by a series of high-profile youth led campaigns.

Over the last ten years, some of the largest corporations on the planet have come to realize that not only is ESG essential for operating a business effectively, it's also vital to keep the support of the public. This created its own problems too. As businesses and the public both acknowledged that climate change is real, and we must act, the concept of greenwashing started to take root. The initial focus on long term commitments and statements of support made it harder to decipher between what was genuine action, and what was public relations.

Transparency and accountability became key defenses against this threat, but another major development was the increased scrutiny and awareness from campaign groups and the public around what constitutes genuine change. This was further supported by initiatives which companies can join and which require evidenced action and public accountability, such as The Climate Pledge, B-Team and Climate Group's RE100 renewable energy and EV100 electric vehicle commitments.

The public scrutiny and increased availability of respected initiatives ensured that the private sector was under increased pressure to tie their climate communications to very real, specif-

The State of Marketing report of 2020 showed that empathetic marketing opens unprecedented opportunities, thanks to greater data and therefore personalization. There is great business value in trusted customer relationships, highlighting the need for marketing to transform rapidly to be fit for the future. Some marketers are already leading the way, with KPIs shifting away from measures such as revenue and sales effectiveness, and towards digital engagement rates and social analytics. Customer satisfaction is seen more and more

as a measure of success.<sup>295</sup>

Driven by a series of crises which have changed people's day-to-day lives, together with the popularization of AI, there is a growing appetite for customers to actively participate in shaping the future of their favorite brands. This can look like having more control over the attention economy: people have grown increasingly wary of algorithms, fearing whether their decisions are truly theirs and even seeking out alternative social media platforms.<sup>296</sup>

## TAKING CLIMATE ACTION TO THE ORGANIZATIONAL LEVEL

BY SOPHIE LAMBIN

FOUNDER AND CEO OF KITE INSIGHTS

Companies are moving from a 'business as usual' mindset to a 'climate emergency' mindset. But to succeed, corporations must transform their business models in line with decarbonization and climate targets, and that means giving employees the understanding, skills, and influence to execute on it.

At Kite Insights, we witness companies transitioning from 'business as usual' to 'climate action', a complex business transformation. Often, there's a misconception that it's a solely top-down process, stemming from a 'command and control' model. However, Stanford's Robert Burgelman underscores the importance of recognizing an organization as a collection of proactive, creative individuals. He emphasizes that success relies not just on top-down strategy, but also on fostering bottom-up initiative and experimentation among employees to support that direction.<sup>297</sup>

This is particularly important when it comes to an organization's climate action. The number of ways in which an organization affects the climate is complex. Every individual in every part of the company can affect its footprint. Not only that, every individual in every part of the company can suggest new ways of working within their domain. But this is only possible if they have the skills and are empowered to use them.

There is good news here: employees are crying out for the knowledge and tools to do just this, and there is considerable risk for businesses that don't deliver. In our survey of 7,134 employees across 15 industries and 10 countries, 15% said that they had considered chang

ing jobs in order to work more closely on climate-related issues within the last 12 months. That rose to 20% amongst the most climate savvy employees. Moreover, 8 out of 10 employees are ready and willing to take action on climate change in their jobs. Seventy percent said they were ‘very’ or ‘quite interested’ in training related to climate action at work. And 70% said that acting on climate change at work was important to their personal sense of motivation and wellbeing.<sup>272</sup>

Climate action can mean helping employees understand how to talk to suppliers about evolving requirements, standards, and metrics. It might include incentivizing lower levels of management to suggest climate-positive innovations. And it might include empowering them to suggest ways their part of the company can support nature-based solutions. This is good for business too: Companies can build a lasting competitive edge by equipping their employees with the knowledge and skills to take effective climate action. By enabling their employees to act on climate they can build greater brand loyalty and respect, attract and retain the best talent, and make themselves more resilient in the face of an evolving regulatory landscape.

Companies that move fast and grasp this opportunity will not just be the most effective actors for the climate, they will future-proof themselves in the face of the climate-conscious market conditions of the second half of this decade. The message I have taken away from my work in recent years is that climate upskilling is an underrated win-win for businesses and the climate. I expect this to be recognized increasingly in the coming years.

To be effective, corporate climate strategy needs to be genuinely strategic – that means engaging, empowering, and inspiring employees to act on the biggest challenge of our age.

To keep up with these societal trends, brands should show their value through meaningful products and services. Many consumers are shifting towards a “community first, product later” mindset, seeking out digital places where they can feel a greater sense of belonging, rather than be bombarded with carefully curated posts. Customers are likely to be willing to pay a premium for innovative and compelling experiences. Brands can harness this trend by introducing exclusive access to online spaces connecting with their customer’s passions and interests, whilst introducing climate consciousness into people’s everyday life and, ultimately, promoting sustainable habits and consumer behavior.



## CASE STUDY: PATAGONIA IS TACKLING THE CLIMATE CRISIS WITH ACTIVISM

Outdoor clothing brand Patagonia was one of the first to use organic cotton, recycled materials and regenerative agriculture in producing its products. Patagonia's strategy is based on the "5 R's": REDUCE short-term purchases, REPAIR damaged garments to avoid discarding them, REUSE what you already have, RECYCLE what is no longer needed, and REIMAGINE a sustainable world. Patagonia invests in overseeing its supply chain, with a particular focus on labor rights and environmental impact. The company has been taking climate action by funding documentaries, suing the federal government over protection of a national monument and boycotting advertising on Facebook and Instagram due to Meta's failure to combat climate denial on their platforms.

Some of the company's best-known campaigns include its "Don't Buy this Jacket" ad in the New York Times for Black Friday, released in 2011, criticizing rampant consumerism and low-quality products; and "Buy Less Demand More", promoting a shift towards lower consumption limited to necessary purchases, and products that last a lifetime. The latter in particular uses implicit learning and memory to influence the attitudes of Patagonia's audience towards the environment. Implicit learning occurs when a person unconsciously absorbs information without fully realizing it, leading to an inclination towards a brand or product. The campaign aims to create implicit learning to ensure that when purchasing Patagonia, people acquire more than a product – but also motivation for the conservation of the environment.<sup>298</sup>

Patagonia has recently restructured the way it controls the company, transferring 2% of shares and decision-making authority to a family trust, and the remaining 98% to a new non-profit focused on activism, the Holdfast Collective. Patagonia will soon have three activism segments: donating 1% of its revenue to grassroots environmental groups as part of One Percent for the Planet; the Holdfast Collective which will funnel larger grants and donations in the millions; and the Home Plant Fund, which will fundraise to distribute money to those fighting climate change in isolated and fragile regions, in particular Indigenous communities.<sup>299</sup>



Figure 106: Patagonia's ad "Buy Less, Demand More".

### 7.3 THE NEW ROLE OF ADVERTISING AND MARKETING

Over the past century, the advertising industry has evolved from showcasing products to building emotional connections and shared values. As competition between mediums grew – with TV, radio and billboards vying for consumer attention – advertising narratives shifted from the ‘what’ to the ‘why’, focusing on how products make consumers feel. Social media has accelerated this evolution, driving brands to engage in meaningful conversations with their audiences.<sup>300</sup> Whether a consumer chooses a brand now rests on the expectations, memories, and relationships it fosters – ultimately,

the social value it offers to consumers.<sup>301</sup>

The emphasis on shared values has not only humanized brands, but also positions them to play a role in driving social change. While advertising is not the primary pioneer of social transformation, advertisers have the power to utilize our massive daily consumption of advertising to accelerate progress. The industry has already applied these principles in amplifying marginalized communities – and it can leverage its communication superpowers to build a shared sense of urgency and responsibility for climate action.<sup>300</sup>

**\$180+** billion

spent on US advertising last year,

---

The average American is exposed to over an **hour of TV commercials**, and as many

**5,000** ads every day

---

Figure 122: Exposure of the average American to TV commercials.  
Source: Insider Intelligence.

“We need to re-architect people’s demands and expectations towards more sustainable, lower-emission products and services, and make them attractive and desirable. As the engineers of demand, the advertising and marketing communications industry is uniquely placed to rise to this challenge and meet this need.”

- Purpose Disruptors, Advertised Emissions



## ADVERTISING IS KEY IN CORPORATE

BY DAGMARA SZULCE

MANAGING DIRECTOR AT THE INTERNATIONAL ADVERTISING ASSOCIATION GLOBAL

With the digital revolution continuing to open new channels and new consumer markets around the world, CEOs, CMOs, and CFOs – who understand the tangible and intangible assets contributing to the creation of brand value – can have a significant business and economic advantage. As consumers become more aware of environmental and social issues, they are increasingly taking into account a company's sustainability practices when making purchasing decisions. If a company is perceived as not being environmentally or socially responsible, it may lead to negative perceptions of the brand, and ultimately result in a decrease in sales and customer loyalty. However, many marketing and financial teams struggle to connect these dots and, as a result, underestimate the significance of their brands to business.

CMOs should consider incorporating sustainability – in an authentic way – into their marketing strategies to appeal to conscious consumers to mitigate brand value erosion. The economic and environmental crises are having a profound impact on consumers' perceptions towards brands. Sustainability is increasingly a priority for consumers when purchasing and, as a result, sustainability perceptions have an increased impact on brand valuation.

Expectations have shifted from “do no harm” to “must create positive impact”. If brands do not push to transform their business into a sustainable one, they, more than ever, risk their bottom line. For many consumers, purchasing a product now requires an alignment on ethical grounds.

International Advertising Association is the only global association that represents all spheres of the marketing and marketing communications industry. We partner with leading global consulting firms to serve the marketing communications industry as the global compass in the ever-evolving marketing communications world. For over 80 years, IAA has played a strong role in reporting the latest trends in the industry to provide valuable insights for CMOs to understand “what’s coming next”.

Our research shows that the world’s biggest brands, whether they are seen as sustainability champions or not, have hundreds of millions of dollars’ worth of value contingent on how sustainable they are perceived to be. By highlighting the financial value that is dependent on sustainability perceptions, we hope to harness businesses’ profit motive – moving them past the point where they see sustainability as a ‘hygiene factor’, to a point of rapid, concerted action. IAA believes that in a fragmented and always evolving global marketplace, the marketing communications industry could benefit from a global perspective and a global framework. We believe the world would be a better place if we worked together as an industry to leverage brands and help create a more sustainable world for consumers, communities, and for the planet.

The advertising and marketing industries are frequently criticized for promoting consumerism. Looking at rates of plastic pollution, human rights abuses committed to produce consumer products, and the rise and fall of microtrends, one would be remiss to neglect the immense role of advertising and marketing in driving the climate crisis. But there is also potential: These industries don't just push products – they shape how people think and behave. They influence culture. So how can we use their superpowers to supercharge climate action?





## A study from the Advertising Association (AA) and Credos on UK advertising's social contribution has revealed that

**34%** of adults believe advertising has a positive impact on society

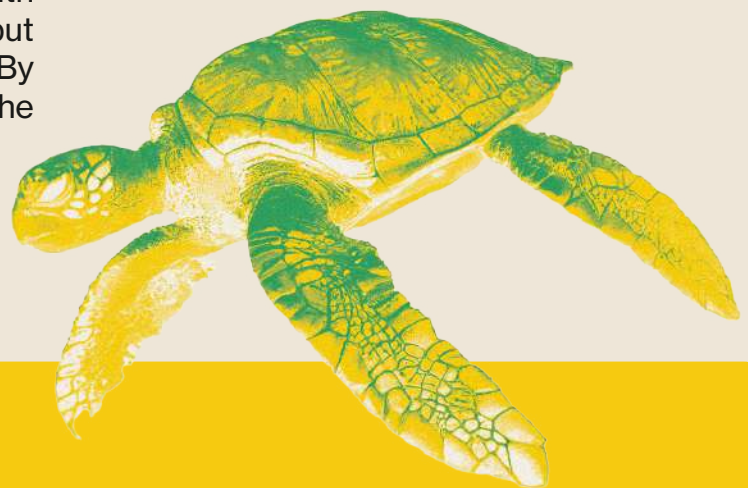
**36%** said advertising's influence was neither positive nor negative and

**18%** said it was negative.

**42%** meanwhile, agreed that advertising had the power to help make the world a better place. Less than a quarter of respondents disagreed with that statement.

Figure 123: Perceptions of UK population regarding the impact of advertising on society.  
Source: The Drum.

The basic goal of advertising and marketing is to sell. But many within the sector want to be more sustainable, and contribute positively to the climate conversation – but they just need direction. Some creative professionals in these fields have already started, coming up with innovative ideas that don't just boost sales but also promote more sustainable choices. By influencing major global brands, they have the potential to make a real difference.



## ADVERTISING WILL SHIFT CONSUMPTION

BY KAREN LAND SHORT

GLOBAL EXECUTIVE CREATIVE DIRECTOR AT ACCENTURE SONG

“The communications industry will play a gigantic part in the green transition. Right now, few brands are taking into account emissions from their value chains, and within that, their downstream customer-related activities. But soon, many will need to since those value-chain emissions can represent up to 90% of Scope 3 emissions for consumer-facing companies. Just around the corner, companies will be looking to lower the emissions associated with consumer use and post-use emissions like, for example, the energy used to heat water while using their shampoo. Soon, businesses will need to decarbonize what’s beyond their control: us. A huge shift in consumption behaviors is needed and will be driven by persuasion. The creative world brings relevance and growth faster than most other cultural levers. Advertising has always been important. Soon it will be essential.”

The global advertising industry, a \$600 billion sector, exerts an immense influence on society, behavior and consumption patterns. The carbon emissions generated by advertising campaigns pose a considerable hurdle to companies’ Net Zero plans, with even moderate campaigns coming with a significant carbon footprint. Further, as the cost of carbon offsetting continues to rise due to rising demand and anticipated regulations,<sup>302</sup> strategies that avoid emissions should be the focus for the industry – especially considering the concerns surrounding long-term value of carbon offsets.

But the industry’s responsibility doesn’t stop there: As the engineers of demand, advertisers can expedite the transition to a Net Zero economy, aligning with both profitability and sustainability. The concept of “Advertised Emissions” –

carbon emissions associated with the industry’s core function – is gaining traction, arguing that beyond just measuring operational footprint, the advertising industry can leverage its unique skills to tackle the climate emergency purposefully. In the UK, emissions from advertising in 2019 accounted for 186 million tonnes of carbon dioxide equivalents – almost half the size of the UK’s total domestically produced emissions.<sup>303</sup>



## CATALYZING CLIMATE TRANSITION IN INDUSTRY ADVERTISING

BY ROB MCF Faul AND JONATHAN WISE  
CO-FOUNDERS OF PURPOSE DISRUPTORS

Purpose Disruptors was founded by Lisa Merrick-Lawless, Rob McFaul and Jonathan Wise in February 2020. We are ex-advertising and marketing communications industry leaders awake to the climate crisis. Our mission is to catalyze the advertising industry's climate transition to be in line with the IPCC's 1.5 degrees global warming target. We share a vision of an advertising industry transformed to be in service to a thriving future.

We have built an influential network of creative agencies, media agencies, awards bodies and industry bodies. And in the last three years, we have built a credible reputation and proven track record for leading on climate and a growing community of over 4,000 advertising insiders working together to reshape the industry. As the architects of demand, the industry will play a decisive role in helping society shift away from our current high-carbon lifestyles, towards low-carbon alternatives. Through our work, we invite the industry to make more conscious choices about how they use their skills.

Purpose Disruptors operates across five pillars: measurement, education, creativity, leadership, and community. Measurement is key, with the concept of 'Advertised Emissions' reflecting the carbon impact of consumption driven by advertising. This is calculated and reduced with the help of industry leaders, and the methodology aims for a 50% reduction by 2030. In the realm of Education, our #ChangeTheBrief Alliance offers insights on sustainable advertising choices and aims to normalize sustainable behaviors. Creativity envisages a future of improved human and planetary wellbeing through our Good Life 2030 project. Leadership is built by working with professionals on personal and organizational transformation, while Community is nurtured through our network of over 4,000 industry insiders, promoting collaborative, supportive networks for systemic change.



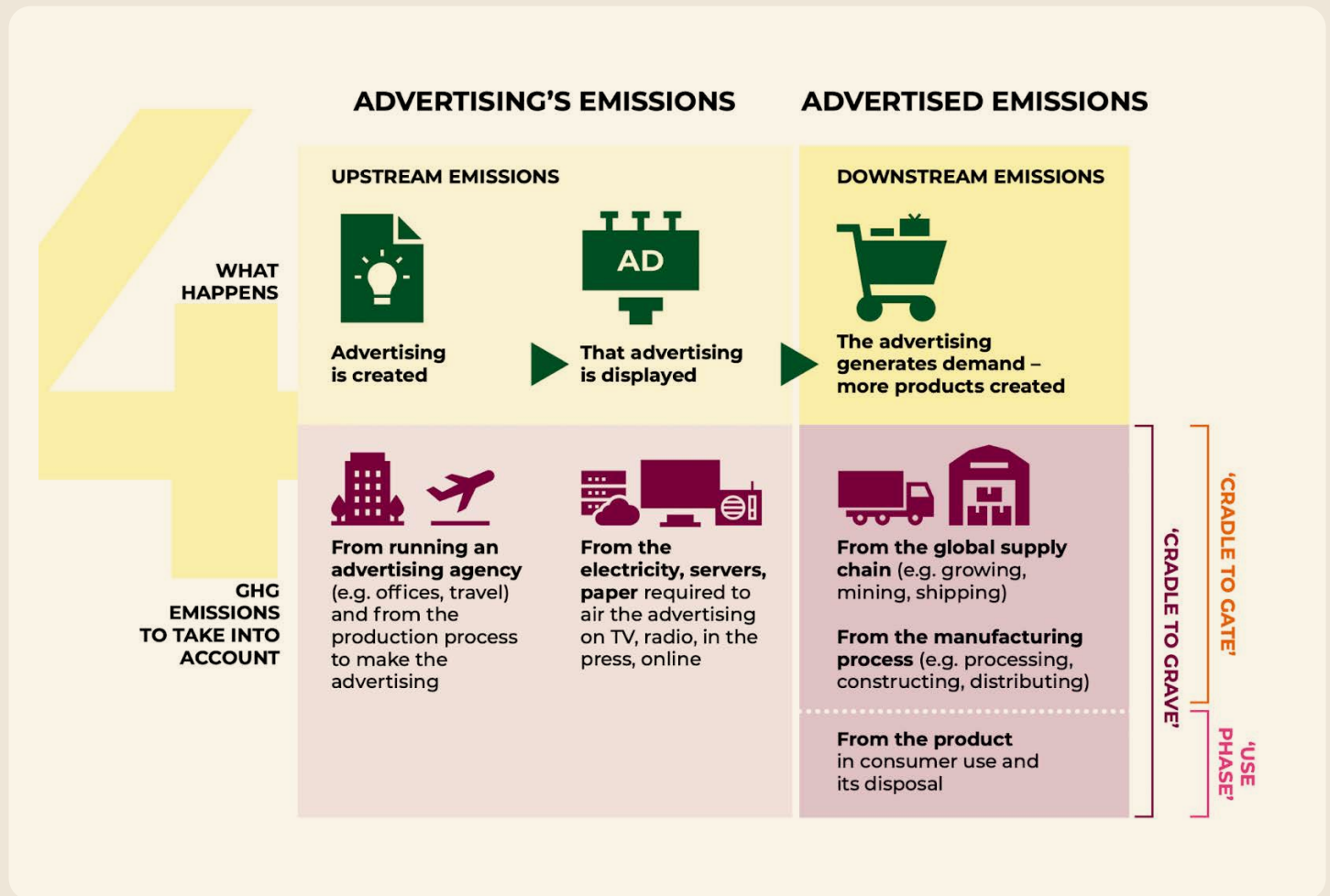


Figure 116: Differences between advertising emissions and advertised emissions and the impact of a cradle to grave approach.

Source: Purpose Disruptors.

Our current approach to advertising is unlikely to be effective in creating the level of climate action and engagement we need. In fact, experts warn that it could even further polarize the debate<sup>182</sup> and that the advertising industry risks more stringent regulations and bans from public authorities if it fails to self-regulate, hindering the industry’s ability to drive positive change.<sup>85</sup> With the right support and evidence-based foundations, advertising can use its superpowers for good.

Positivity and accessibility should be at the forefront of creative communications, reinforcing that sustainability is an upgrade rather than a sacrifice and offers superior functional, emotional, and social benefits. Sustainability should be portrayed as normal, everyday living, with

visuals of sustainable products and services seamlessly integrated into mainstream culture. The future should be depicted as easy and desirable, promoting the idea that most solutions already exist and can be implemented with joy. Utilizing new technologies can support futuristic sustainability efforts and reach tech-savvy audiences, as demonstrated by the World Wildlife Fund’s use of NFTs,<sup>108</sup> with its innovative and novel tech-forward generation into conservation.

As the biggest engine of societal change, the advertising sector plays a crucial role in facilitating the world's transition towards a low-carbon, sustainable economy. It needs to help reshape people’s demands and expectations towards

sustainable, low-emission products and services, making them attractive and desirable. Despite the industry itself not being a direct heavyweight emitter, its influence extends far beyond its own carbon footprint. It wields power not just in its capacity to shape consumer behavior, but also to redefine societal norms and expectations towards more sustainable, low-emission products and services.<sup>303</sup>



## TRANSFORMING ADVERTISING FOR SUSTAINABILITY

BY CHRISTOPHER MOSCARD

VICE PRESIDENT OF CLIENT EXPERIENCE AT HORIZON MEDIA

Sustainable behavior is often at odds with advertising, as promoting consumption can lead to increased materialism and negative environmental impacts. Data supports that individuals who consume more also have a greater likelihood to act in less environmentally friendly ways, further exacerbating the climate crisis. It's important to acknowledge, however, that advertising can have a significant influence on the behavior and emotional responses of its consumers. Green marketing can harness this influence by tapping into emotional and psychological drivers, to encourage pro-environmental behavior. By highlighting the positive benefits and gains of eco-friendly choices, green advertising can inspire consumers to make conscious and responsible choices.

With tailored messaging that is focused on the positive co-benefits of environmental goals, consumers may experience an anticipated effect of well-being, fulfillment, and pride. This can also build a sense of community, as other individuals engage in the same consumer behavior. Leveraging this insight, green marketing can encourage greener consumption, fostering an increased desire for individuals to fit within a wider movement.<sup>85</sup>

Conscious consideration of the environment and sustainability has become an important factor in consumer decision-making. In the recent American Sustainability Survey, a third of individuals acknowledged that sustainability influences their purchasing choices, indicating an upward trend in consumer behavior towards environmentally responsible practices.

Increasingly, young people identify as "planet protectors" and favor sustainable brands – which in turn influences businesses to adopt eco-conscious strategies. It's not just about environmentally-friendly products: young consumers desire brands embodying ethical values and corporate responsibility. The advertising should participate in that shift by urging brands to consider their ecological footprint or risk aversion. Advertisers' ability to capture young

generations' loyalty hinges on promoting responsible brands committed to sustainability. To remain competitive and relevant, today's brands must display a genuine dedication to environmental practices – aligning with the rising eco-conscious consumer demographic.

Younger people and women typically show more concern for climate change, while older demographics and men are less worried. Women tend to be more influenced by sustainability across all ages.<sup>304</sup> Economic vulnerability reduces support for climate policies, more so among men due to their financial risk sensitivity. This ties in with societal gender roles where men focus on economy and women on care. As men age, they are less likely to see economic growth as environmentally harmful. Women, on the other hand, more frequently support egalitarian policies and social programs.<sup>305</sup>

The integrity in which brands showcase this commitment is essential to establishing customer trust. It's imperative that brands are mindful of greenwashing tactics that communicate erroneous or deceptive claims regarding their environmental credentials. Even individuals with extensive environmental knowledge may not always be able to detect greenwashing in advertising, failing to perceive these claims as misleading.<sup>306</sup> Although products and brands with sustainable attributes are generally received positively, greenwashing can exploit eco-conscious consumption decisions. There is evidence that indicates that greenwashing can also erode trust among consumers who have higher environmental knowledge, thereby fostering skepticism and distrust.<sup>307</sup>

Given the influential role of the advertising industry in shaping attitudes, it is essential to dedicate efforts towards motivating older demographics, and bridge the gap between men and women's perceptions of climate issues – for example, research shows men are more likely to respond to motivational messaging, rather than sacrificial messaging. By choosing messaging that highlights solutions and the benefits of addressing climate change, we can create greater impact and motivate a broader range of people to take action.

As we explore in 8.2, young people are key to driving climate narratives and progressive policies. Brands and industries have a unique opportunity to tap into this audience, as Gen Z now make up a fifth of the population of the US, and a quarter of the global population. But in order to connect with young people successfully, brands will need to put their money where their mouth is.

Gen Z are critical consumers significantly influenced by their values, particularly sustainability and social justice. They are digitally active, with

a preference for streaming services and social media platforms like YouTube, Instagram, TikTok, and Snapchat. They expect brands to be authentic, engaging, and conscious of their social and environmental footprint. Brands that address climate change and incorporate sustainability into their marketing efforts are more appealing to this generation - Gen Z desires brands to take a stand on social justice issues beyond just promotional campaigns. Influencer marketing remains a potent tool to reach Gen Z, but they value authenticity in such partnerships.<sup>308</sup>

## ADVERTISING CAN BE PART OF THE SOLUTION

BY HERVÉ DE CLERCK

DREAM LEADER AT ACT RESPONSIBLE

I have dedicated all my business life to advertising and marketing, first as a copywriter, then a marketer, a researcher, an adman and media executive. I've been lucky to start my career at a time when our focus was to create dreams for large audiences. Our heroes were the likes of Bill Bernbach and David Ogilvy. Advertising was all about consumption, and responsibility was not part of our daily vocabulary. Advertising for good causes was mainly an opportunity to feel useful and win awards.

We are part of the problem, so let's be part of the solution. At the dawn of this century, things changed (slowly) when consumers began to realize the importance of social and environmental realities and brands wanted to meet these expectations. Since then, Adland jumped on the Sustainability bandwagon accelerating the pace of change for Good.

The advertising industry has increasingly embraced sustainability and purpose-driven strategies, responding to consumer pressure to be more responsible in their practices. Authenticity, transparency, and trust are now seen as essential elements of the marketing mix, reflecting a growing recognition that consumers are seeking brands and companies that are committed to social and environmental responsibility.

Overall, the potential for good in the advertising industry lies in its ability to use communication and marketing to drive positive change, whether by promoting responsible consumption, advocating for social and environmental issues, or supporting purpose-driven companies and brands – keeping the magic of storytelling and creativity.

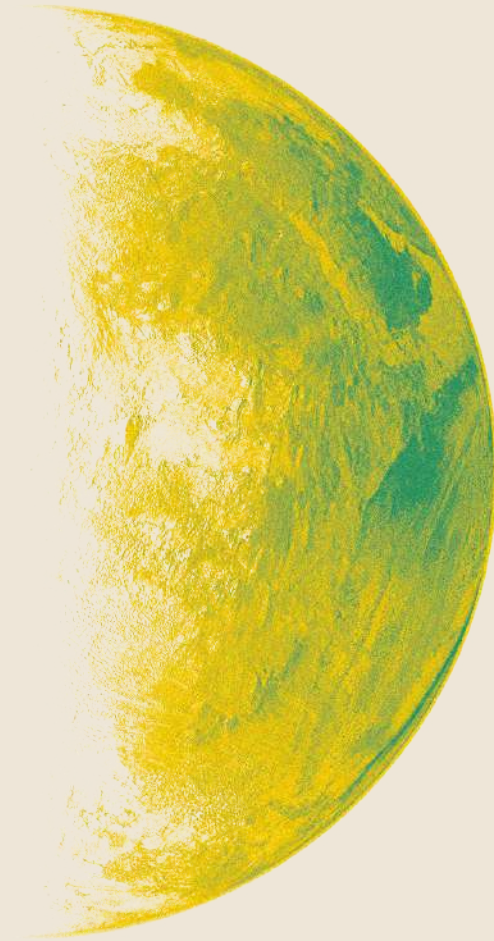
While it's challenging to establish a direct link between advertising expenditure and negative environmental impacts, there is no denying that advertising influences consumption, investment, and economic growth. Advertising's impact on climate change is tied to its promotion of materialism and consumerism, as these factors often drive purchasing decisions based on status, or what we perceive as desirable<sup>85</sup> (see 4.1).

Green advertising has the power to guide consumers towards a low-carbon culture by providing accurate, evidence-based information and tapping into psychological processes such as moral satisfaction, affinity to nature, and fear responses. To effectively drive this shift, the advertising industry should take a holistic approach by not only reducing its own footprint, but also influencing individual decisions and promoting a culture of climate protection.<sup>85</sup>

“Advertising can capture a significant proportion of this spend, if it can reinvent itself from the demand-creator of the industrial age to the participation- driver of the regenerative age.”

#### - Purpose Disruptors, Advertised Emissions

Green advertising can utilize non-climate emotional cues that are linked to tangible benefits and therefore perceived as attractive, such as health. It can also capitalize on our inherent wish for social approval – and associated emotions of wellbeing, fulfillment and pride – by highlighting the social benefits of eco-friendly behaviors. Visual cues such as nature images and green colors are central to green persuasion, as they can evoke emotional experiences similar to direct contact with nature – leading to improved ad recall and more positive attitudes towards it.



## REDEFINING WHAT A GOOD LIFE LOOKS LIKE

BY LISA MERRICK-LAWLESS

CO-FOUNDER OF PURPOSE DISRUPTORS

Despite widespread concern about climate change, only a small portion of citizens in the US and UK commit to make individual behavior changes necessary to meet climate targets. That means for many more, the mainstream climate narratives aren't resonating.

What's more, the advertising industry, with its emphasis on a "good life" of status & wealth, is itself creating a counter-version of a good life that's taking us in the opposite direction. Advertising reformers Purpose Disruptors have developed the Good Life 2030 project to invite a reimagining of what an alternative "good life" might look like. The project looks ahead to 2030, to mark the UN's critical milestone for halving emissions, while appreciating human & planetary wellbeing will mean tackling far more than just carbon.

Key to the project are real citizen visions of a Good Life in 2030. Since 2021, we have been



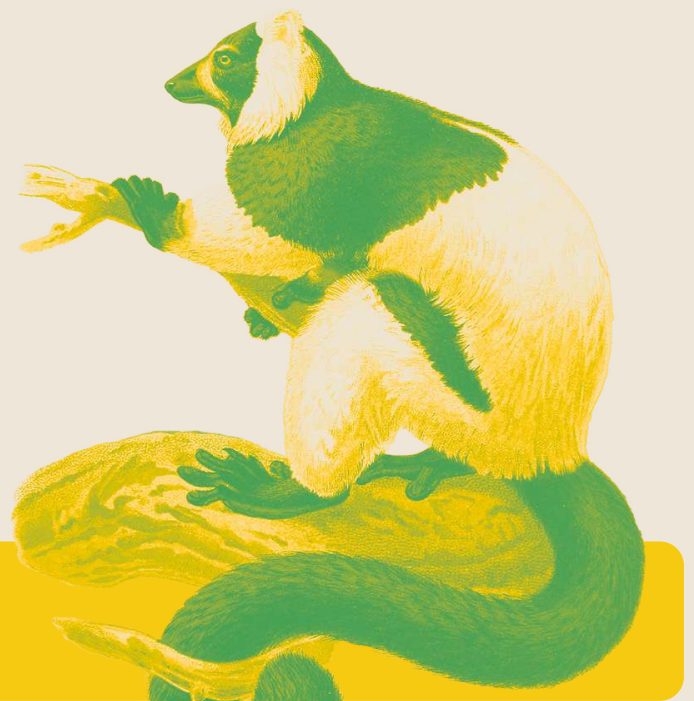
tracking the future visions of citizens representing the UK “climate mainstream” - 42% of the population who are concerned about climate, but resistant to taking climate actions like flying less or adopting a plant-based diet. The source of this dissonance is clear: in the dominant cultural narrative of a Good Life – one of status and wealth – these choices feel like compromise and loss. However, when given a chance to reflect on what really matters and imagine their own future Good Life, citizens share a coherent vision of a life with a stronger sense of connection: to themselves, to others and to nature. Anchoring in latent and untapped citizen values provides a powerful foundation for shifting social norms at the surface level.

People working in advertising are architects of desire. Their work shapes our understanding of a Good Life. So what if they could help shape a new narrative of the Good Life, one that champions connection over consumption?

Similarly to other climate communication approaches, green advertising can focus on prevention of environmental degradation through depicting climate change threats and evoking fear responses, which in turn lead to increased pro-environmental behavior. However, fear activation should always be accompanied by accessible and evidence-based information on what consumers can do to decrease the threat – otherwise, this approach can diminish consumers’ perceived self-efficacy and motivation to engage in pro-environmental behavior.<sup>85</sup>

The challenge that lies ahead is not merely to decarbonize the advertising industry’s own operations, but to accept and embrace its broader environmental responsibility. As a formidable driver of societal change, the advertising sector must harness its unique powers – its creativity, imagination, strategic planning, analytics, and ability to activate change – to redefine the narrative around sustainability.<sup>303</sup>

The call to action is clear: The industry needs to go beyond reducing its operational emissions and start promoting a sustainable, low-carbon future, effectively using its superpowers for the greater good.



## CELEBRATING ADVERTISING FOR GOOD

BY HERVÉ DE CLERCK

DREAM LEADER AT ACT RESPONSIBLE

ACT was founded in 2001 by Adforum employees in response to the 9/11 attacks. The organization's name stands for Advertising Community Together, and the tagline at that time was "It's our business to help." The call was for the ad community to create ads against violence and terrorism and offer a way for the industry to express their solidarity by donating their talent - creativity. Despite the lack of social networks at the time, in just a few months, the community reacted by sending hundreds of creative works from all around the world.



Figure 117: "Tarzan" - WWF - Uncle Grey Denmark (2007 ACT Collection)

For our 20th anniversary, we looked back in the database and analyzed 27,864 ads and 14,869 campaigns created by over 4,000 agencies for 6,200 advertisers in more than 116 countries. While the United States, United Kingdom, and France account for a large percentage of the campaigns identified, impressive ads are created by agencies from all around the world. In the latest years we have seen that agencies from South America for example have caught up with the United Kingdom and Northern Europe in terms of the number of campaigns. This suggests that there is a growing diversity of perspectives and approaches to advertising challenges that are emerging from different regions. It's always interesting to see new and original creative ideas coming from different parts of the world, and this diversity can bring fresh perspectives and approaches to advertising challenges.



Figure 118: "Ice Cream", World Wildlife Fund - VVL BBDO Belgium (2005 ACT Collection).

Over the years, we've also seen that advertising has undergone a transformation with the rise of digitalization. Previously, television spots, print, and outdoor advertising were the primary distribution channels until 2005. However, the advertising landscape has since diversified into an array of over 15 different media, reflecting the multimodal digital world we live in. In response to these changes, advertising creativity has adapted to new formats and conventions.

It's noteworthy to recognize that new players in the advertising industry, such as social media, apps, music videos, and games, have now become important platforms for creative and impactful campaigns. With these new channels, there are now wide possibilities for efficiency strategies, and the ability to track, analyze, and target with Big Data. These changes have also opened new opportunities for NGOs to partner with agencies to test the latest innovations and demonstrate to their clients the incredible possibilities offered by digital technology. It's obviously only the beginning.

It is exciting to watch through our collection of ads the evolution of the advertising industry's approach to social and responsible advertising. It started as a response to a specific event, and then grew into a broader movement to promote good causes through advertising. However, as the industry started to use social and responsible advertising to win awards or attract talent, it faced criticism for being insincere or opportunistic. The emergence of greenwashing and social washing further complicated the issue, highlighting the need for genuine commitment to social and environmental responsibility. It's important to continue promoting responsible advertising and encouraging companies to use their power to make a positive impact, but it's equally important to ensure that this is done with sincerity and authenticity.

Marketing has a unique place in the corporate world, as it's closely tied to a company's success or failure, often serving as the mainline for brand interactions with consumers. The strategies they employ can make or break a brand's reputation, which gives them a big responsibility. By prioritizing sustainable practices from within the industry, marketing can positively

influence stock values, public perception and the wider brand landscape. When marketing moves away from greenwashing and instead promotes impactful initiatives, it can inspire other departments within a company to adopt similar practices, leading to wider sustainable transformations.



### **ENSURE YOU ARE REACHING PEOPLE BY USING ADVERTISING.**

Don't assume your message is reaching the public. People can only act on information that reaches them. While you may not like a world awash in advertising, that's the world we live in. If you're not buying attention, you risk getting none. Digital advertising usually costs far less than most progressives think. You can also drop advertising bombs to change narratives and make news.



### **REPEAT, REPEAT, REPEAT YOUR MESSAGES.**

People learn from incessant repetition, which sticks in the brain, changing its very circuitry. Therefore, only repetition of simple messages changes public opinion. Only when you are sick to death of saying the same thing over and over do you have any chance of breaking through. Repetition also creates political pressure on leaders. They know one-time messages or actions, like a demonstration, go away. Repetition forces leaders to pay attention.

Figure 119: David Fenton's Communication Rules for Activists.



## FASHION NEEDS TO STEP UP

BY MATTEO WARD

CO-FOUNDER OF WÅRD

Culture's role in sustainability is deep-rooted. Looking into the history of unsustainable fashion, we find that political decisions from the 1600s to 1800s laid the foundation for today's fashion industry. The motives then mirror today's, they're just amplified by modern technology.

In 1792, Alexander Hamilton promoted the industrialization of the US in congress. He recommended that the US should exploit women and children, water, and focus on fashion. The justification for this exploitation was rooted in a culture that viewed nature and humans separately, placing us as superior. In contrast, Indigenous communities embody sustainability. They see the land around them as family, and live in a symbiotic relationship with nature.

The fashion industry isn't just about clothes – it's a reflection of culture. In the 21st century, the role of clothes encompasses everything, including how we relate to other people and the world around us. I sincerely believe that if we can drive a fashion revolution, we can drive a global revolution.

Research shows that there are thousands of different chemicals in our garments. Our skin absorbs everything we wear, the first studies on this go back all the way to the 1960s. Some of these chemicals are carcinogenic, and their full implications are yet unknown. This is why we aim to educate corporations, consumers, and lawmakers alike, to ensure better products and policies for all.

What's really resonated in our approach is tapping into the emotional side of things rather than just focusing on scientific facts. We need education and communication at the same time. Our recent documentary "Junk" on Sky Television was produced to reflect just that. In fashion, buying is an emotional process. It's not just about hearing that a piece of clothing is sustainable, or seeing some data on a tag.

We rolled out "Junk" in schools and made the episodes freely accessible for educational use. The impact was palpable – even the European Commission even took notice. But still, most of the people we reach are already on the sustainability train. There's this conspicuous "value-action" gap, where good intentions around sustainability don't always turn into action. Cost is one barrier, but emotions and psychology are monumental. To address this, we leaned even more into understanding neuroscience and building that emotional connection with our audience.

We need to cut the crap and halt the greenwashing. There's such an overuse of the term 'su-

stainable' that it's become cringeworthy. Brands must be vulnerable and acknowledge that true sustainability doesn't exist. No piece of clothing can be fully sustainable, but we can mitigate its harm, redistribute value, and maximize social impact. Being transparent and realistic, rather than flaunting vague numbers and promises, is essential.

The whole "I'm greener than you" game brands play is childish. They're playing with our futures. Brands can genuinely make a difference by inspiring consumers in engaging ways, like urging them to use products longer. Brands need to focus on things that truly resonate with people – it's not about how much data you can cram on a tag. Such strategies may have worked in 2015, but not today. Brands should help consumers navigate the sustainability maze, and become the best version of themselves. It's about a mutual journey, accepting no one is perfect. They need balance in their messaging.

75% of consumers have raised their expectations of businesses since the COVID-19 pandemic.<sup>309</sup> In response, the Future of Good report lists 43 emerging trends across technology, fashion, investing, transport, food, entertainment and a number of other sectors, all focused on tackling the world's biggest problems.<sup>310</sup> Impact areas include sustainability, diversity and inclusion, mental health, social justice, climate change as well as civic activism and voting.

The report also finds that doing good is a win-win: According to data from Accenture Strategy, surveying nearly 30,000 consumers across 35 countries found that brand purpose drives growth, as 63% of consumers prefer to purchase from purpose-driven brands,<sup>296</sup> Kantar Consulting's Purpose 2020 report stated that brands with purpose grow twice as fast as others,<sup>311</sup> largely due to their increased popularity with millennials and Gen Z.<sup>312</sup>



## CASE STUDY: NATURA IS SETTING HIGH STANDARDS FOR THE BUSINESS COMMUNITY

Natura, a leading Brazilian multinational specializing in cosmetics, has a reputation for its robust commitment to sustainability and responsible business practices. Natura was the first public company and the largest enterprise to receive the B Corp certification, which evaluates companies based on their relationships with the environment, employees, customers, the community, and their adherence to high standards of corporate governance.

Natura's commitment to sustainable business practices forms a key part of its growth strategy. The certification process helped the company identify multiple areas for improvement. As a result, Natura undertook significant strategic initiatives, including a partnership with UEBT (Union for Ethical Biobrade) which aims to ensure a rigorous external audit system for Natura's Amazon supply chain.

This commitment to sustainability, transparency, and social responsibility has strongly resonated with its stakeholders and consumers – in a world where consumers are becoming increasingly conscious of their environmental and social impact, Natura's approach positions it as a trailblazer in marrying business growth with sustainable and responsible practices.<sup>313</sup>



Figure 120: Region of médio Juruá in Amazonas, where raw materials for Natura products are extracted (Otavio Pacheco/Natura)

Social media companies such as Google and YouTube have started taking a more proactive approach by cracking down on ads promoting climate misinformation and demonetizing misleading content. There is now an increased understanding that historically underrepresented groups don't just need representation, they need products that are made for them, and help with access to investment and resources.<sup>310</sup> Further examples include metaverse activism (such as recycling projects and fundraising in video games), AI used in hiring and social media feeds to ensure diversity and inclusivity, apps promoting mental health and wellbeing.<sup>314</sup>

engaging in purpose-driven marketing, brands must be careful to not just run purpose-driven campaigns, but also take action on them so as not to risk falling into greenwashing or woke washing.<sup>312</sup> A recent survey showed that only 34% of people actually trust the brands they buy from and 53% think that brands 'trustwash' or are not as committed as they claim to be<sup>6</sup> – highlighting the need for brands to practice what they preach.

Current policy visions are usually communicated by focusing on particular technologies - such as renewable energy and electric cars - without



Figure 121: Saltwater Brewery 'Edible Six Pack Rings' Case Study, by Cause Marketing, in YouTube.

The shift towards purpose-driven sustainable business will necessitate a new level of collaboration: While 78% of climate leaders in business see their Chief Sustainability Office (CSO) or CEO as their day-to-day lead in delivering Net Zero targets, 46% say that multiple departments are involved in making the shift.<sup>93</sup> When

embedding them into the larger systemic and social context. Researchers argue that instead of focusing on these smaller targets, broader visions imagining whole worlds rather than isolated elements could lead to stronger results.<sup>222</sup> And this approach should be reflected in the way we restructure the media environment.



## THE AD INDUSTRY IS CHALLENGING US TO CREATE PROGRESS

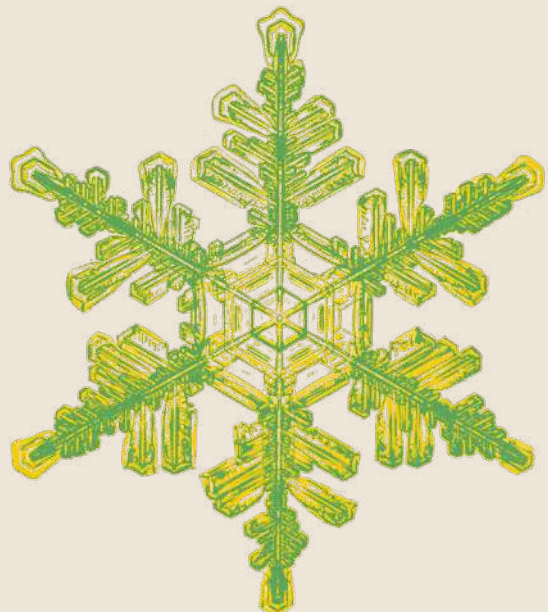
BY THOMAS KOLSTER  
MARKETING ACTIVIST

Our industry is digging its own grave (or trench) on climate. The ad industry is proven to fuel growth. One report, Ad Pays, from the Advertising Association, shows that advertising alone in the UK adds £120bn to the GDP by raising economic activity and boosting productivity. What's critical right now is urgency. No more goals around 2030, 2040 or 2050. Everyone on this blue planet should be aware of what they can do right now to lower their carbon footprint and how they can be part of the systems change needed.

The climate debate has turned into a bickering kindergarten where complex challenges have turned into a black-and-white worldview. We can't just keep pointing fingers at each other: citizens at businesses, activists at governments, our industry at legislators. It's OK to disagree; what matters is our ability to find the best compromise together. We need to challenge each other to create progress.

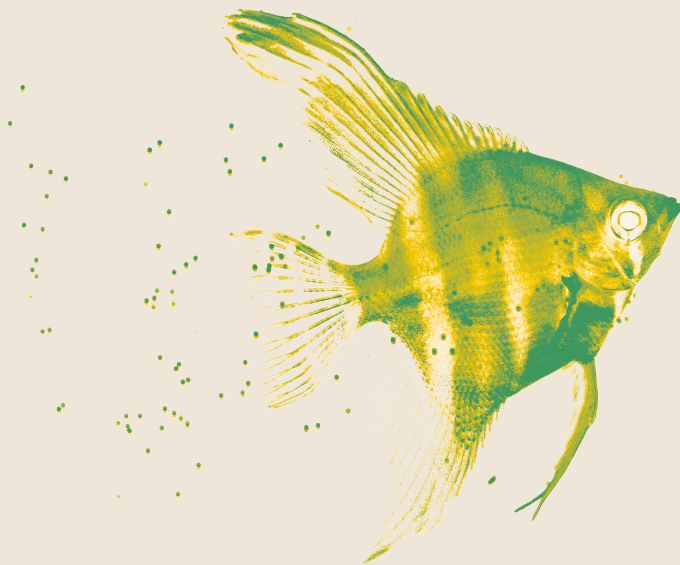
Secondly, we ad folks don't hold all the answers and we desperately need to invite more diverse stakeholders around the table to find the fresh required answers. One good recommendation for today's marketing plan: think about how you can still increase market shares while drastically lowering your carbon footprint because, in the western world, your average citizen has a planetary footprint three to five times higher than it should be. As an industry, we have an obligation. This is what should keep everyone in marketing up at night.

**RECOMMENDATION:** By using their creativity in a new way, advertising and marketing can help shift people's mindset. Instead of just being consumers, people can start thinking more like informed citizens who make choices based on more than just price or popularity. For brands, this isn't just good for the planet – it's also good business. As the data has shown, people appreciate and support companies that care about the environment. To make a real difference, the advertising and marketing sectors should collaborate with experts outside their usual networks. By teaming up with scientists, local communities and policymakers, brands can be part of genuine change – future-proofing both their business and our collective future.



### 7.4 EMERGING TECHNOLOGIES

As climate impacts become ever more pressing, Artificial Intelligence (AI) and Blockchain are emerging as potential technological solutions. AI – with its diverse applications ranging from ecosystem conservation to advancing renewable energy research – shows the potential to drive positive changes, while Blockchain offers both added transparency and efficiency, especially in carbon monitoring and resource allocation. However, the integration of these technologies presents its own set of challenges, including governance concerns and issues of trust. While technology presents promising solutions, strategic implementation is key to realizing its full potential for a sustainable future.



#### CASE STUDY: HOW GOOGLE USES AI TO DRIVE CLIMATE ACTION

AI has the potential to be one of the driving forces behind the fight against climate change. Initiatives like Google's DeepMind harness this potential, working on innovative projects that could accelerate the transition to renewable energy sources. One critical aspect of AI's potential in climate action is its application in understanding weather, climate, and their effects. In collaboration with the UK Met Office, DeepMind has developed a precipitation nowcasting model which has significantly improved accuracy compared to previous methods – enhancing short-range to medium-range weather forecasting, an element crucial for optimizing renewable energy systems dependent on natural resources.<sup>315</sup>

DeepMind has also made strides in using AI to analyze the behavior of animal species across the Serengeti and supports machine learning projects that back conservation efforts in Africa. In Australia, their team is developing AI systems that can identify bird song – a useful tool for monitoring wildlife changes on a large scale. To fill gaps in climate-related data, they've partnered with the non-profit organization Climate Change AI. Their joint venture focuses on creating a comprehensive wishlist of datasets that, if made available, could propel AI solutions for climate change forward.

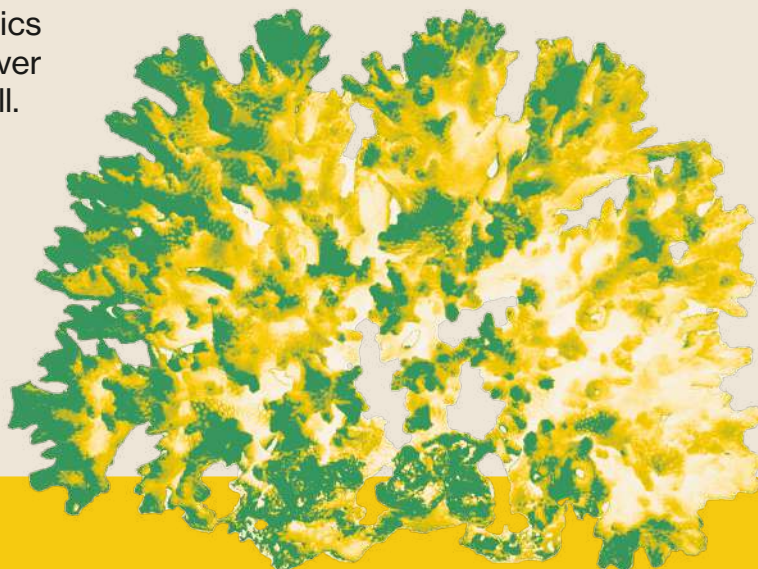
Other areas of DeepMind's work involves developing AI tools that can enhance the efficiency of current energy-intensive systems like industrial cooling and computing infrastructures. One instance of this optimization was in 2019, where their team collaborated with domain experts at a Google-owned wind farm to increase the value of wind energy. By devising a custom AI tool for better wind power output prediction and a model for supply commitment recommendation, they significantly boosted the wind farm's value.<sup>315</sup>

Despite concerns around regulations, copyrights and biases,<sup>316</sup> AI is demonstrating significant potential in driving positive environmental changes. Further examples<sup>317</sup> of its application include:

- AI technology is being used for surveillance and protection of ecosystems, the creation of high-resolution generative AI art to raise biodiversity awareness, and the promotion of sustainable agriculture. For instance, Conservation AI deploys AI-powered cameras globally, artist Sofia Crespo uses AI to generate art representing unknown species, and Verdant and Monarch Tractor utilize AI for precision spraying in agriculture.
- AI models are being used for powering renewable energy research. Inception program and Zenotech developed models that predict cloud cover over solar panels and simulate energy output from wind farms.
- Accelerating climate models and weather visualizations: For example, NVIDIA's FourCastNet is a physics-ML model that forecasts the precise path of catastrophic atmospheric rivers a week in advance.
- Managing environmental disasters with satellite data: AI is used to detect climate risks from satellite and drone feeds, aiding in disaster prevention and recovery.
- Robot-assisted recycling: EverestLabs' RecycleOS, an AI software and robotics solution, helps recycling facilities recover 25-40% more waste, thus reducing landfill.

AI is also increasingly being used to drive climate literacy – with not-for-profit organizations such as Climate Policy Radar utilizing the technology to map climate policies and laws globally, in an effort to support “a deep understanding of what works, where, and for whom”. It does so by training AI algorithms to extract useful information from climate documents, pinpointing trends and highlighting action gaps.<sup>318</sup>

AI and other digital technologies can strengthen governance practices and policy coherence in climate change, by modeling and forecasting vulnerabilities across the world and tackling potential inequalities exacerbated by climate disasters. If implemented in a timely and well-designed manner, these can deliver economic and environmental benefits to countries, strengthening environmental sustainability and reducing climate vulnerability.<sup>319</sup> Moreover, AI can be crucial for improving understanding and managing the climate crisis, namely with AI-augmented systems, which enable pattern recognition, directing intervention strategies and planning.<sup>320</sup>



## FOSTERING NATURE CONNECTION THROUGH EXTENDED REALITY

Trees often receive most of the attention in climate change discussions, but fungi – the unsung heroes of nature – are what make trees possible. Fungi draw carbon underground, which helps limit the effects of climate change. At South by Southwest, Accenture Song premiered Forager in partnership with [The Fungi Foundation](#) – an immersive 4D experience converging humans and the fungi kingdom. Participants interact with the life cycle of a mushroom in a novel way, controlling the growth of an extensive underground network connecting every plant in the forest.

They witness a hyper-real portrayal of nature through close-ups of mushrooms, facilitated by the world's first time-lapse photogrammetry technology. The audience experiences elements such as wind and thunder, smells of mushrooms, and music sampled from fungi, as well as tasting mushrooms through olfactory design.

A foraging map familiarizes participants with The Fungi Foundation's mission to protect this kingdom which is essential to a stable climate. Forager has gained popularity as a sought-after XR experience, paving the way for in-game ecological photorealism. Recognizing how fungi have sustained life also enables us to understand their potential in securing our future.



Figure 124: Forager case study - Cannes Video.

It is important to bear in mind the possible risks of AI, as there are limitations in digital connectivity, which disproportionately affect low- and middle-income countries, consequently increasing climate adaptation gaps across countries. AI can also impact employment, as it can be seen as replacements of important jobs within communities. Women will be disproportionately affected, as AI is a highly biased technology which can paradoxically increase socio-economic inequalities.<sup>319,321</sup> In order to address this, it is important to interpret AI-generated results and remove related bias, allowing for a more comprehensive analysis to ensure meaningful decision-making.<sup>320</sup>

Another aspect to consider is the integration of climate considerations into AI development and deployment policies, ensuring responsible production and use of AI technologies, to the extent that it does not become a high carbon emitter. Mandating emissions measurement can enable regulation through climate policies, allowing for targeted AI design and feasibility policies and ensuring transparency and accountability for emissions-intensive use cases.<sup>321</sup>

Another technology which holds potential for action on climate and sustainability is Blockchain, thanks to its decentralized, open, and global features. Blockchain could help democratize resource ownership, provide transparency to decarbonization mechanisms, and increase the efficiency of climate mitigation and adaptation strategies. Paired with digital tools like remote sensors, drone imagery, and artificial intelligence, blockchain technology can enable real-time monitoring and verification of emission reduction and carbon sequestration efforts.<sup>322</sup>

Blockchain technology can revolutionize climate finance, aiding in the rise of annual climate investments from \$632 billion to the required \$4.35 trillion by 2030 for a resilient, net-zero world. This technology offers solutions for trust issues in the rapidly expanding voluntary carbon market by providing transparent digital records and real-time carbon sequestration monitoring. However, realizing this potential will demand unprecedented global coordination, increased public awareness, and constructive regulatory support, underscoring the role of local, regional, and global policies in steering blockchain's impact on climate action.<sup>322</sup>

The progress of technology is fast-paced and ever-changing. Public awareness, transparency, and accountability are crucial in its use, and it will be critical to ensure widespread and democratic participation to avoid replicating existing social inequalities.<sup>320</sup> With the right frameworks in place, new technologies hold promise to help us overcome time constraints and speed up the transition towards a more sustainable world.



## CHAPTER 8 – RE:SIST

# THE RISE OF ACTIVE CITIZENS

---



## 8.RE:SIST

In the past few decades, the world has witnessed a transformation in the way individuals view themselves in relation to the larger global community. Globalization, fueled by technological advancements and increased mobility, has birthed a new kind of identity: that of the global citizen.

Previously, one's identity was largely shaped by their immediate surroundings – today, more people are starting to view themselves as part of a global community. It's a deeper shift in perception, with people recognizing that their actions and decisions can have global implications. This shift towards global citizenship has tangible consequences: It impacts how individuals engage with issues from climate change to human rights. There's a growing understanding that these challenges aren't confined to any one nation or region, but that they are shared problems which require collective solutions. Brands are also noticing this shift, and their strategies and communication methods are adapting to cater to a more globally aware audience.

To bring about real change, it's crucial that we move climate conversations away from single-issue portrayals and involve all parts of society. A critical component is to integrate the perspectives and energy of young people – their views, combined with the experience of older generations, can provide a balanced inter-generational approach to climate solutions.

But it's not just about age: Intersectionality – involving everyone regardless of their ethnicity, culture, or socioeconomic status – nothing but strengthens the climate movement.

As the world becomes more interconnected, there's a need for structures that support and guide these new global connections in constructive ways. Global citizenship offers us an advantage in the realm of climate communications: With a global perspective, individuals can better understand the interconnectedness of climate change causes and impacts, as well as the urgency of taking collective action.



## 8.RE:SIST

### 8.1 THE RISE OF CITIZENSHIP

---

“To be a Citizen is to care, to take responsibility, to acknowledge one's inherent power. To be a Citizen is to cultivate meaningful connection to a web of relationships and institutions. Citizenship benefits from a free and expansive imagination, the ability to see how things could be, not just how they currently are.”

- Jon Alexander, writer, in *Citizens*

Recent years have seen a shift in our collective identity from consumers to active global citizens. Thanks to the process of globalization, people have become more socially, economically, politically, and environmentally involved. The boundaries of states have blurred, and the ease of travel and access to the internet have enabled individuals to transcend their national identity and embrace the concept of global citizenship. Accenture's Life Trends report predicts that in recent years, more people have been turning to protest as a way to raise their voices against injustice, in some cases at great personal cost, disrupting companies and whole economies.<sup>296</sup>

In *Citizens*, Jon Alexander presents two narratives that have shaped our roles in society: The Subject Story and The Consumer Story. In the Subject Story, people traded personal power for the protection of a dominant leader. This led to hierarchical societies where few had control and the majority were passive followers. Then, we shifted to the Consumer Story, where individuals became central, driven by purchasing choices that defined their identity. However, the current consumer narrative made many overlook our real power: the ability to create options, not just pick from them.





## TACKLING HUMANITY'S MOST PRESSING ISSUES THROUGH ACTIVE CITIZENSHIP

BY CAMILLE MAY

FOUNDER & CEO, AND JAMES SALAZAR, DIRECTOR OF IMPACT & ACCOUNTABILITY  
AT GLOBAL CITIZEN

Ending extreme poverty is not a simple or straightforward mission. At Global Citizen we take on uncomfortable conversations that address the world's biggest systemic challenges. As the world's leading international advocacy organization on a mission to end extreme poverty NOW, Global Citizen is powered by a worldwide community of everyday activists raising their voices and taking action, the movement is amplified by campaigns and events that convene leaders in music, entertainment, public policy, media, philanthropy and the corporate sector.

We engage in dialogue with governments, businesses, and philanthropists, often to create change at scale and uproot systems that have been in place for decades. And in a perfect world there would be no need for galvanizing public support around specific solutions to address extreme poverty, because basic needs and fundamental rights of all people would be met and respected.

So far Global Citizens have taken 33.5 million actions across a decade, to impact the lives of almost 1.30 billion people globally, securing pledges across the United Nations Sustainable Development Goals, to help deliver [life-saving vaccines and housing](#), [emergency refugee aid](#), [education](#), [protect the Amazon](#), and much more.

We're campaigning to end extreme poverty by making sure that commitments made on the Global Citizen stage during our festivals are delivered to organizations on the front lines, ensuring protection, equality, and equity for the world's most vulnerable communities. This means that each day the Global Citizen Impact team is following up by holding commitment-makers accountable and checking in with beneficiaries to see progress on every single pledge.

Yet unfortunately, we live in a world in which, in many countries, it's not politically expedient or popular to address the causes of poverty and inequality. If it were, those issues would already be a distant memory. That's why Global Citizen was established: to make sure that what isn't necessarily considered a priority, resonates with and does get prioritized among those in power.

Global Citizen effects change in two ways: it pressures those with power to make and fulfill poverty-alleviating commitments; and it enhances the efforts of frontline partners and organizations battling extreme poverty. We believe in the essential role of civil society in policy making and that advocates, especially from vulnerable communities, should voice collective

concerns and participate. At its core, Global Citizen is a collective of active citizens using their unified voice to drive actions to end poverty. Our internal team aids these efforts by liaising with officials, leading roundtable discussions, collaborating with influential artists, and utilizing media and our potent content creation arm to extend our reach.

Our platforms – including festivals, broadcasts and the [Global Citizen App](#) – help push governments, corporations, and philanthropists to prioritize poverty-related issues. These commitments are the beginning: without ongoing strong advocacy, we cannot eradicate poverty or protect the planet. Holding leaders accountable is essential to ensure they fulfill their promises. Exhausting every advocacy avenue is needed to achieve our mission. When the events end and the crowds leave, we critically assess the impact of the commitment on poverty alleviation. This post-event work is just as important and necessary to ensure that the hard work of Global Citizens and organizations isn't wasted, and the promises made are upheld.

Advocacy involves the hard work of numerous advocates and organizations worldwide through a range of methods that, when combined, can achieve a common goal. That's why Global Citizen has been proud to partner with, learn from, and shine a spotlight on, some of the leading organizations and grassroots activists working to fight extreme poverty, ranging from global experts to local partners.

Why does Global Citizen celebrate progress when there is still so much work to be done? Impact tracking allows us to celebrate accomplishments both large and small. It keeps our most ardent supporters engaged, giving them hope and encouragement that change is possible. And it also allows us to push back against apathy and indifference to show that we can and must change the world for the better. Every step forward is a step closer to that better future.

Advocacy efforts and societal progress can often be characterized as being two steps forward and one step back. It's a hard truth that real, lasting, and significant change through advocacy work is hard. The fact that it is hard though proves the vital necessity of the role advocacy plays in society. If it were easy and promises were kept, there would not be a need for advocates to generate pressure and build platforms. However, it's when commitments are not made or promises broken – whether that be related to donated COVID-19 vaccines or the climate crisis – that's when advocacy is needed more than ever. It's also why accountability is so key to effective delivery of programs, services, and laws meant for the public benefit.

Over the past 10 years, \$43.6 billion in commitments announced on Global Citizen platforms has been deployed, impacting nearly 1.3 billion lives. When individuals take action with Global Citizen, they're standing up for millions of people worldwide who still don't have access to the most basic needs, like food, education, civil rights, and much more. Every day, people from around the world join us to campaign to end extreme poverty by ensuring that commitments made on the Global Citizen stage during our festivals are delivered to organizations on the front line of the world's biggest challenges.

Although the shift towards global citizenship may have contributed to a decline in voting participation and increased self-expression through consumerist trends, it has also sparked the growth of global protest movements and grassroots networks. As the world becomes more interconnected, people are more aware of their role in it and seek to take action to improve the state and trajectory of the global community. But as we become more internationalized, people yearn for a sense of community. This has significant implications for brands, who must adapt to an ever-changing audience and cater to the changing values of new generations of citizen-consumers to maintain relevance and contribute to our collective yearning for social change.

A survey by Cone Communications found that 64% of millennials won't take a job if the employer doesn't have strong Corporate Social Responsibility (CSR) practices, a trend coined 'conscious quitting' and in some cases 'climate quitting'.<sup>323</sup> Given that 75% of the workforce will be made up of millennials by 2025, companies need to become socially responsible employers. This trend is even more pronounced in Gen Z, the first generation that prioritizes purpose over salary. This message is starting to arrive in climate-conscious businesses, 22% of which believe that Net Zero targets would drive employee acquisition and retention.<sup>92</sup> An overwhelming 86% of consumers want to 'play their part in solving big challenges like climate change and social justice', according to data from Wunderman Thompson Intelligence.

## According to a Pew Research poll in 2019

**67%** the public thinks we're doing too little to reduce the effects of climate change.

That, of course, doesn't mean that they prioritize it, or that they're actively pushing for action on climate. But another 2019 poll, conducted by CNN, found that

**"82 percent of registered voters who identified as Democrats or Democratic-leaning independents consider climate change a 'very important' top priority they'd like to see get the focus of a presidential candidate."**

Let us account for the fact that roughly 80 percent of eligible citizens are registered, and that 40 percent of voters are Democrats and about 30 percent independent (which we'll conservatively assume split equally into 15 percent and 15 percent when it comes to which direction they lean). That yields at least 36 percent of American citizens ( $0.80 \times 0.55 \times 0.82$ ) who reasonably define the "issue public" for climate action- that is, the set of people who prioritize the issue.

Figure 125: Perception of the public about the actions to reduce the effects of climate change.  
Source: "The New Climate War" by Michael Mann.

Countries are the least likely to say they are either “very worried” or “somewhat worried” about climate change

---



CHILE  
**91%**



MEXICO  
**88%**



PUERTO RICO  
**88%**

Countries with people that are most likely to think that their country or territory should reduce its pollution that causes climate change, regardless of what other countries do.

---



AUSTRALIA  
**65%**



PORTUGAL  
**65%**

In contrast, respondents in these countries are least likely to think so.

---



BANGLADESH  
**14%**



CAMBODIA  
**15%**

Countries with people that are most likely to say that they are currently participating in, or “definitely” would join, an organized group working to convince leaders to take action to reduce climate change.

---



ZAMBIA  
**75%**



MALAWI  
**74%**

Respondents in these countries are least likely to think so.

---



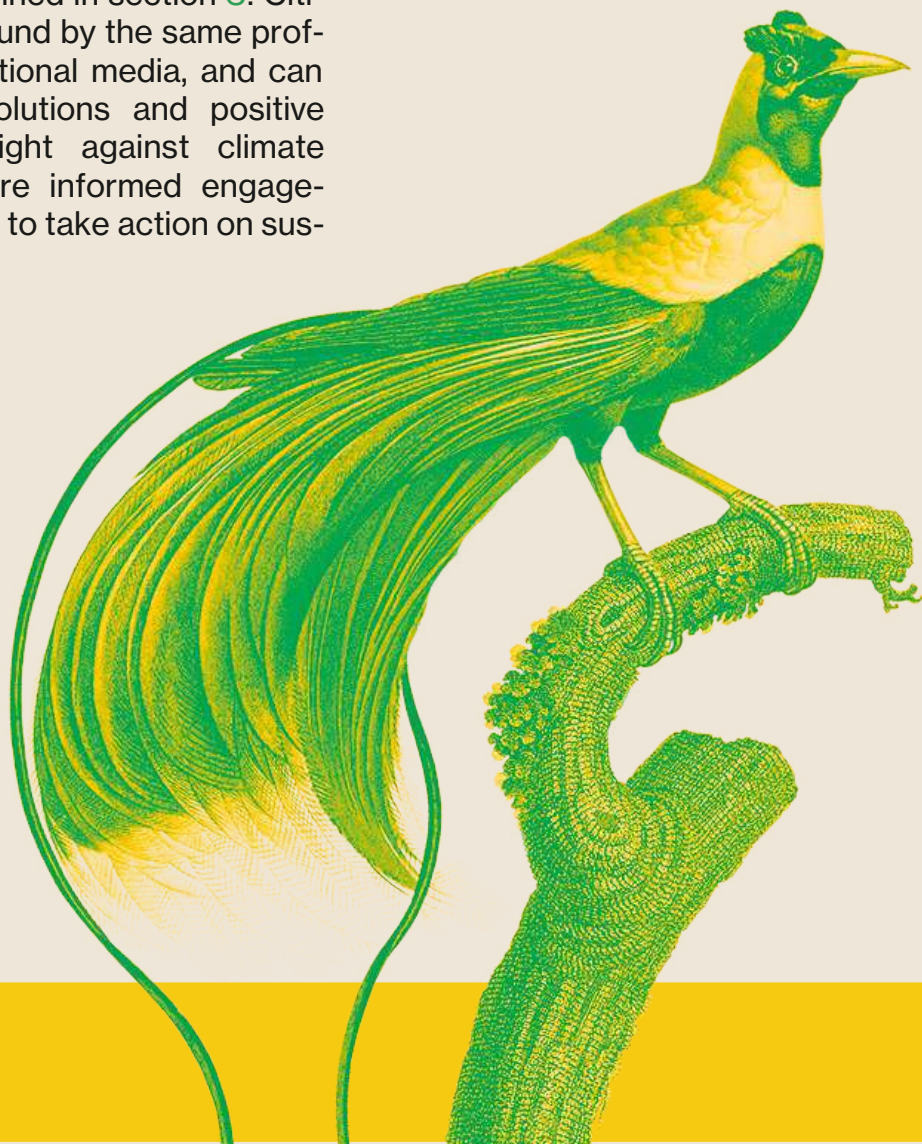
FINLAND  
**9%**



NETHERLANDS  
**10%**

The liberalization of information which occurred in the 21st century now allows anyone to share their personal experience in real time. People are becoming citizen journalists outside of traditional media structures, allowing the public to hold media accountable for any inaccuracies or lack of news coverage.<sup>324</sup> If citizens had a generally better understanding of climate science, together with accessible information and resources, citizen journalism could be a powerful tool for climate communication. Participatory reporting also allows for storytelling, increasing the impact of a message through personal experience, fostering a connection between the messenger and audience. Citizen journalism can provide a platform for positive and nuanced reporting on climate change, overcoming the harmful media trends outlined in section 3. Citizen journalists are not bound by the same profit-driven motives as traditional media, and can focus on highlighting solutions and positive developments in the fight against climate change – fostering more informed engagement and inspiring people to take action on sustainability issues.

Citizenship also plays an important role in major climate events like the Conference of the Parties, with Civil Society driving much of the progress happening inside negotiation rooms through public pressure campaigns, protest, and organizing – sometimes even despite threats of intimidation and surveillance.<sup>325</sup>



## ATTENDING UNFCCC CLIMATE CONFERENCES AS PART OF CIVIL SOCIETY

BY WILL HACKMAN

CONSERVATION AND CLIMATE ADVOCACY EXPERT

I attended my first UN climate conference just days after the election of President Donald Trump. It was COP22 in Marrakech, Morocco, and I represented my graduate school as part of the “RINGO” (Research and Independent Non-Governmental Organizations) constituency. There were many such organizational constituencies including YOUNGO (youth organizations), BINGO (business), ENGO (environmental NGOs), and more. What all these organizations provide is much needed civil society engagement alongside the official UNFCCC proceedings.

Public awareness and pressure is critical to effective government. Civil society and citizen advocacy fills a very important role in elevating issues of concern and holding elected officials accountable. This was on display in the most recent COP27 in Egypt where huge efforts by civil society across the world led to a first-of-its kind agreement on Loss and Damage. If a country isn’t moving quickly enough to meet its targets or if a domestic election causes backsliding, civil society can step in to right the ship.

I saw an example of this the next year at COP23 in Bonn, Germany. I attended alongside a bipartisan delegation of 11 U.S. states, which included four governors, state legislators, and heads of state environmental and energy agencies. At that time, it was the largest delegation of U.S. states to ever attend the annual climate talks. Due to fear of U.S. climate policy rollbacks during the Trump Administration, cities, states, and other “subnational actors” stepped up and redoubled their own commitments in anticipation of what the federal U.S. government may or may not do over the next few years. The “We Are Still In” coalition and other efforts were created. COP23 became the most important conference for subnational actors in the 25-year history of international climate negotiations.

This example is one of many that highlight how important the COPs are as a rallying point for global action, a platform for communicating climate awareness, and a process for us as global citizens to engage with decision makers. Even if you can’t get access to one of these official constituency groups and get inside the conference (aka: the “Blue Zone”) thousands of people now attend events and rallies outside the main conference area each year (the “Green Zone”). This public area has become very important to the COPs with many officials, scientists, and VIPs traveling back and forth to engage with the public.

With an issue as large as climate change, it can often feel as if individual actions can’t possibly make a difference. That is why it is so empowering to take part in these conferences alongside tens of thousands of others in civil society. Collectively, our voices are making a difference in the negotiations.

Research by Purpose Disruptors reflects the collective shift from individualism to community, with many people in the UK yearning for connection not just to community, but also themselves & the natural world. Creative industries have a unique opportunity to grasp these societal trends and become key players in what holds promise for transformative societal transformation.<sup>150</sup>

now face the challenge of catering to these evolving values – citizen-consumers have come to expect social and environmental responsibility in corporate practices as the bare minimum, with young generations placing purpose above paychecks. Our evolving sense of global citizenship – together with the influence of grassroots movements and political engage-



Figure 126: How UK's citizens envision their connectedness to self, to others and to nature. Source: Good Life 2030.

from passive consumers to active global citizens, the ripple effects are evident across various sectors. Our expanding connectedness – enabled by digital media – is enhancing our awareness of global issues, and driving the pursuit of social justice and environmental stewardship. Brands and the creative sector as a whole

– is shaping the trajectory of global events. To support this collective evolution, two key challenges must be addressed: ensuring that citizens are informed and engaged on climate issues through climate literacy and education (see 6.4), and empowering young people – the next generation of climate leaders.

“The good news is that the climate emergency has given rise to the largest and most broadly based social movement in human history. That movement has a billion roots, a billion people who set out on their own or in small groups and are now starting to meet up and look around - surprised and exhilarated - at each other. This huge, global movement is starting to become self-aware, to understand its size and power.”

- **Brian Eno, writer, in Citizens**





## 8.2 THE RISE OF THE YOUTH CLIMATE MOVEMENT

Despite having contributed the least to climate-heating emissions, young people and future generations will bear the burden of the climate crisis. Young people will grow up on a planet that is increasingly altered by climate impacts, negatively affecting a number of dimensions of their lives - such as socio-economic conditions, security, physical and mental health.

The current generation of adolescents and youth, comprising 24% of the global population and predominantly residing in low and middle-income countries, is the most exposed to climate stresses. Today, almost every young person in the world is exposed to at least one climate or environmental threat such as heat-waves, cyclones, air pollution, flooding, or water scarcity. These climate hazards not only pose direct risks to their physical and mental health, but also impair their access to essential services like nutrition, education, employment, and healthcare.

The Youth Climate Movement has historically evolved through three distinct cycles, based on Andreas Malm's analytical framework, described in *How to Blow up a Pipeline: Learning to Fight in a World on Fire*. The first cycle began in 2006, reaching its peak in 2009 with large-scale marches during COP15. The second

cycle took off in 2015, characterized by a shift from reformism to civil disobedience, such as actions against fossil fuel infrastructure and divestment from fossil fuels. The third and current cycle began in 2018, kickstarted by the Fridays For Future (FFF) movement. This cycle, powered by large-scale school strikes and demands for leaders to heed the science, has witnessed the YCM gaining significant momentum and mainstream attention.<sup>326</sup>



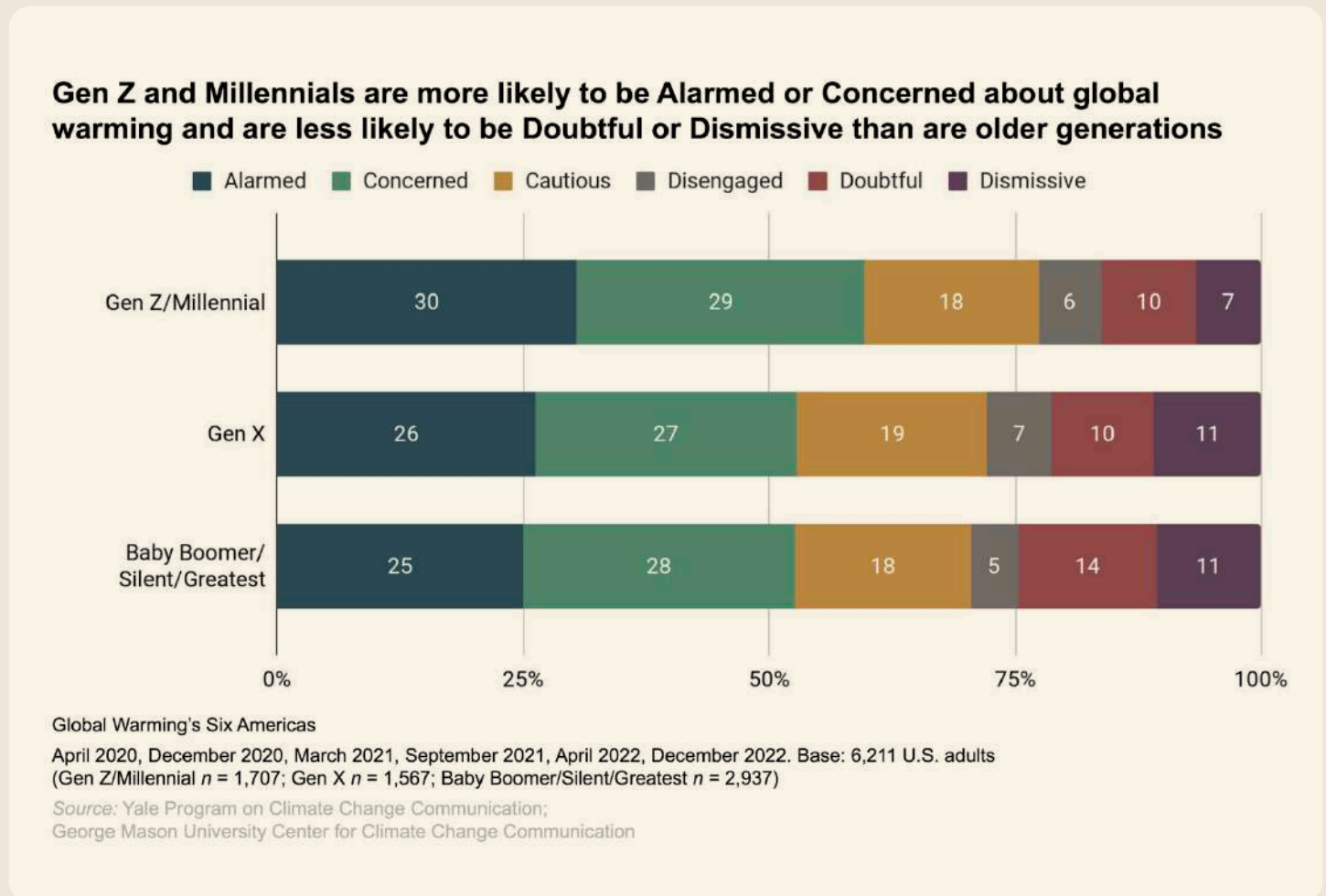


Figure 126: How UK's citizens envision their connectedness to self, to others and to nature.  
 Source: Good Life 2030.

Young people are championing a Human Rights Based Approach (HRBA) to climate change, necessitating the design of climate policies that prioritize the needs of the most vulnerable and integrate key principles of participation, equality, non-discrimination, accountability, and transparency from human rights law. Youth activists are actively advocating for these principles on multiple fronts, from local communities to international forums. Movements such as Fridays for Future, the Children and Youth Constituency of the UNFCCC, and other youth-led initiatives, push for the rights of vulnerable populations to participate in climate processes while ensuring equality and non-discrimination.<sup>327</sup>

Despite recent achievements and the global recognition of youth activism, a significant gap remains in the integration of youth in climate policies. Only a fraction of nations' climate commitments in 2021 were youth-sensitive, illustrating an urgent need for the adoption of human rights-based policies.<sup>327</sup> Additionally, people in positions of power who have influence to affect policy – such as politicians and celebrities – praise young people in a tokenistic manner to divert attention towards youth and their accolades and away from their own inaction. The term “Youthwashing” has gained popularity, and describes young people’s voices being used in a performative way without acting on their concerns, needs or demands.<sup>328</sup>

## HOW FRIDAYS FOR FUTURE WENT GLOBAL

BY DOMINIQUE PALMER

CONSERVATION AND CLIMATE ADVOCACY EXPERT

Fridays for Future is a global youth-led movement demanding climate action. It began in August 2018, when Greta Thunberg sat in front of the Swedish parliament every Friday, and globally, youth increasingly raised the alarm on the climate crisis. Then, the school strikes went viral – and young people started organizing climate strikes in unprecedented numbers, shifting the narrative on the climate crisis and becoming the beating heart of the climate movement. Being part of the rise of young people demanding climate justice across the world was exciting, and an emotional rollercoaster.

After discovering the disproportionate impact of air pollution in South London where I grew up, and the consequence of rising sea levels in island nations such as Jamaica, I sought out other young people who also felt the fire in their heart to take urgent action. After attending my first climate strike in London in May 2019, I joined Extinction Rebellion Youth, and later Fridays for Future International and its UK branch, the UK Student Climate Network (UKSCN). In September 2019, we co-organized the largest environmental protest in UK history. Over 350,000 people took to the streets across the country, alongside millions across the world. This wave of protest was the biggest environmental movement in history. We brought an emotional narrative to the climate crisis, touching hearts and telling our unique stories. We shifted public understanding of climate from something abstract, to something deeply personal, affecting our collective futures.

These incredible feats were due to the distinct type of organizing of young people. We utilized many tools – such as mobilizing people onto the streets, meeting with politicians, and speaking in the media. We onboarded other young people, organized logistics and legal safety of protests. We reached out to allies and older adults in the movement, who provided spaces to meet, opportunities to connect and collaborate with other groups, and occasionally funding. We mobilized through community outreach, pasting posters and stickers across the city, using the power of social media, making activism look fun, and tugging on heart-strings. We were serious, but we also had fun with it, which allowed us to engage new audiences.

Our success did not come without challenges. After many successful strikes, the media moved on, the excitement wore down, and we struggled to mobilize a higher number of people than we wanted to. We needed to find other communication strategies to sustain a global movement. Our biggest challenge hit shortly after – COVID-19. To continue to mobilize people during a global pandemic, we had to change our strategy. The pandemic prevented us from organizing in person, so we started #ClimateStrikeOnline on social media, and organized large Zoom calls every Friday as well as livestreams with scientists to keep the momentum going. We made sure that the climate was not forgotten about. It was a dark time,

but it also showed many people that we need to move towards a system which prioritizes the wellbeing of people and the planet. Organizing globally also brought global solidarity to the movement, and allowed us to amplify those on the front lines of the climate crisis – marking a shift in how the global FFF movement's focus on social justice alongside climate action.

One of the biggest communications challenges we face is to show the variety of ways activism can take place – beyond protest and strikes. Another one is communicating to the public that a green future is best for all of us. We need to utilize positive messaging and show people what a sustainable future actually looks like. Lastly, communicating the complexities of climate action and justice can be difficult. We face big oil, and those who want to stick to the status quo – those people hold systemic power. But they underestimate the power of the people – and what young people have done, and continue to do, is truly monumental.

"Mapping the Youth Climate Movement" by Climate Vanguard provides an insightful exploration into the evolving dynamics of the youth climate movement and how it has developed around the issue of systemic change, specifically targeting capitalism and colonialism as the root causes of climate and ecological breakdown. According to the authors, one of the key challenges the movement is facing is its lack of a coherent theory of change, long-term strategy and coordination. This lack of unity, coupled with limited material resources, poses a significant obstacle to the movement's progress.

Over half of the groups surveyed for the report identified a system prioritizing profit over people and the planet, specifically capitalism and (neo-)colonialism, as the root cause of climate and ecological breakdown. Despite this, many groups within the Youth Climate Movement had not translated their understanding of these root causes into a vision of structural, systemic change. Instead, they often seek to reform the worst features of the current economic system, rather than directly uproot it. The Youth Climate Movement, despite its potential for radical transformation, requires significant support to overcome its current challenges. In particular, the need for funding, organizational

development, networking, vision-building, and skills training is central. With the necessary aid and allyship, the Youth Climate Movement has the potential of becoming a powerful catalyst for systemic change.

Young people use a diverse range of mediums from marching on the streets to holding governments accountable to their actions and commitments in court. Most importantly, young voices have reached hearts and minds and truly shifted narratives around the climate crisis – by transforming climate from a distant issue to one affecting present and future generations. Activists have been using narratives and stories to forge a collective identity, recruit participants, motivate collective action and affect institutional policymaking.<sup>207</sup> They have been successful both on a societal level (enlisting support from diverse groups including labor workers, teachers, existing environmental groups, celebrities, and collaborating partners), and in the political realm, influencing climate change policies in some countries – for example, the UK government declaring a climate emergency as the first country in the world after Greta Thunberg spoke to parliament and Extinction Rebellion blocked major roads in central London for ten consecutive days.

## ATTENDING COP AS A YOUNG CHANGE-MAKER

BY NYOMBI MORRIS

CLIMATE JUSTICE ACTIVIST

As a climate activist from the global south, communication hurdles are numerous – a major one being language barriers. For someone who hasn't studied English since elementary school, it has been difficult for me to convey my message in the manner that the rest of the world expects. Many climate change stories, panels, and speeches are conducted in English – if you want to be noticed, you must learn it.

COP27 was my first major climate conference, and I was disappointed at the lack of youth involvement. To me, it seemed like the meeting was only for leaders and policymakers – young people did not have access to many negotiations unless we had government accreditation. It is also very difficult to establish dialogue with leaders at these conferences due to the high level of security. Often, opportunities for youth voices to be heard are limited to demonstrations outside the venue. But even then, coverage is limited, and only a few lucky people have their voices heard.

Finally, the meetings are teeming with fossil fuel lobbyists – over 600, according to a Guardian article.<sup>329</sup> We need to make more room for young people to speak at such events, rather than merely complementing us for our efforts. We must also do everything possible to ban fossil industry lobbyists from climate negotiations – they keep diverting people's attention away from what they have done to the world, and what needs to be done to tackle climate change.

The ripple effects of youth activism mean that often the success is immeasurable and rather than having a direct effect, actions shift the spectrum of acceptability for governmental inaction and policy. This is known as 'the Overton Window'.<sup>330</sup> In 2015, 21 youth plaintiffs in the US sued the Federal Government over violating their civil rights to a safe climate. Although this was blocked as it was supposedly beyond the government's 'constitutional power',<sup>331</sup> since then many other youth groups have followed suit by suing their respective governments, including in Portugal, England, the Netherlands, Colombia and Pakistan. In a landmark lawsuit led by a group of Montana Youths in 2023, a court ruled that young people have a constitutional right to a healthy environment, and that

the state must consider the potential climate impacts of new fossil fuel projects.<sup>332</sup> Many of these cases have been successful in their own right and resulted in a tightening of decarbonization and deforestation legislation.



## MY EXPERIENCE AS THE COP27 YOUTH ENVOY

BY OMNIA EL OMRANI

ENVIRONMENTAL HEALTH RESEARCHER

In 2021, the Egyptian COP27 Presidency appointed a youth envoy for the first time with a vision of bringing in a meaningful transformation in the participation of youth and reflection of their perspectives into the formal climate negotiation processes.

Ahead of COP, a separate Conference of Youth (COY) takes place which has been organized by YOUNG-O, the official youth and children constituency to the UNFCCC, for the past 17 years and running. At the end of each COY there's a global youth statement - a policy document representing the voices of over 30,000 young people around the world. This is then presented to the presidency in a ceremony to consider how we can take these recommendations on board in a meaningful way, and have them implemented within the COP conversation, which the Presidency facilitates.

One of my roles is to facilitate our discussions with the youth constituency and other youth, run consultations with them and listen to the challenges that we as the presidency can address. But we also listen to policy recommendations that we can work with country negotiators to integrate. We also organize the Youth Day, which is the presidency's and YOUNG-O's semantic day during the first week of COP, and all the seventh sessions on that day.

My work has three main pillars. The first is to build the capacity of young people who are coming to COP. I worked with an amazing team of Egyptian young volunteers from the Ministry of Youth on organizing COY17 along with five Egyptian youth-led organizations. The second pillar was to create a toolkit for young people attending COP, to understand the process better and make the most out of their participation - for example, the different opportunities they can engage in and the different structures that exist within the UNFCCC space, as well as tips on how to make the most out of meetings with negotiators influencing countries, to make sure they don't backtrack on their promises and step up their ambitious.

To achieve that, we need to centralize the needs of young people and facilitate intergenerational dialogues with young people as equal partners. I also supported the first ever Children and Youth Pavilion bringing in all the different key actors. The spirit was to amplify and elevate the grassroots efforts and innovative solutions that young people are leading in their fields, which is why we created an online platform leading up to COP, to showcase young people's stories.

## 8.RE:SIST

In recent times, there has been a change in the activism approaches, with a shift from protest to dialogue and an increased emphasis on diversity of tactics. This development has seen a strategic move away from disruptive activism, focusing on fostering conversations to generate consensus and promote change. The impacts of the global pandemic and the cost of living crisis have played a role in reshaping activism, prompting a reevaluation of priorities and approaches. While protest remains an important tactic for climate advocates, the role of dialogue has increased alongside it. As society moves forward, solutions from youth activists are increasingly important. Rolling out climate education globally will be crucial in equipping the next generation of climate leaders with the knowledge and tools to contribute to the changes needed to meet safe and ambitious climate targets [\(see 6.4\)](#).

To maintain and increase their impact, young activists are in need of communication support. Many groups are busy enough organizing and campaigning on top of school, university and other commitments – finding space for long-term strategic messaging development is easily neglected. This issue is not limited to the Youth Climate Movement – in *The Activist's Media Handbook*, David Fenton points out that activists can sometimes act on their emotions and rage instead of using smart tactics to win over majority opinion. Issues such as ideological rigidity and the failure to put forward a clear program that appeals to most working Americans have contributed to movements' continued inability to gain power. He further stresses

## 8.2 THE RISE OF THE YOUTH CLIMATE MOVEMENT

that the language of the climate movement doesn't work for most people, and that NGOs continue to be preoccupied with policy, neglecting the importance of capturing public support.

Recent years have seen a rise of young climate content creators, who are using their communication and media skills to educate, influence and mobilize. Increasingly, they are seen as important players in national and global policy – in 2023, a group of advocates were invited to visit the White House following the passing of the Inflation Reduction Act, as recounted by climate educator and content creator Isaias Hernandez:



## TIKTOK MEETS WHITE HOUSE

BY ISAIAS HERNANDEZ

FOUNDER OF QUEER BROWN VEGAN

In September 2022, I was invited to the White House to celebrate the passage of the Inflation Reduction Act. The event was organized by Climate Power and Palette Media, which brought together social, racial, and environmental justice media creators, activists and artists to learn about the recent progress the Biden Administration has made on their climate commitments. I never would have thought in my life to be in the same room with politicians like Gina McCarthy and Ali Zaidi. Never in my life did I think that as someone doing environmental communications, my work would be noticed by the White House. Only a few years prior in 2018, when I was wrapping up my Environmental Science undergraduate at UC Berkeley, I had professors laugh at my idea of using social media to create social change.



*Figure 129: Celebration of the passage of the Inflation Reduction Act with President Joe Biden, in an event organized by Climate Power and Palette Media.*

*Source: Isaias Hernandez.*

On the day, we were invited to Theodore Roosevelt's old room and sat at a long dining table – and out of nowhere, President Joe Biden came out and said hello, which was a huge surprise to us. To see our current President validate, hear, and talk to us about the future of our climate was a big deal. He acknowledged that he's not perfect and that not everyone agrees



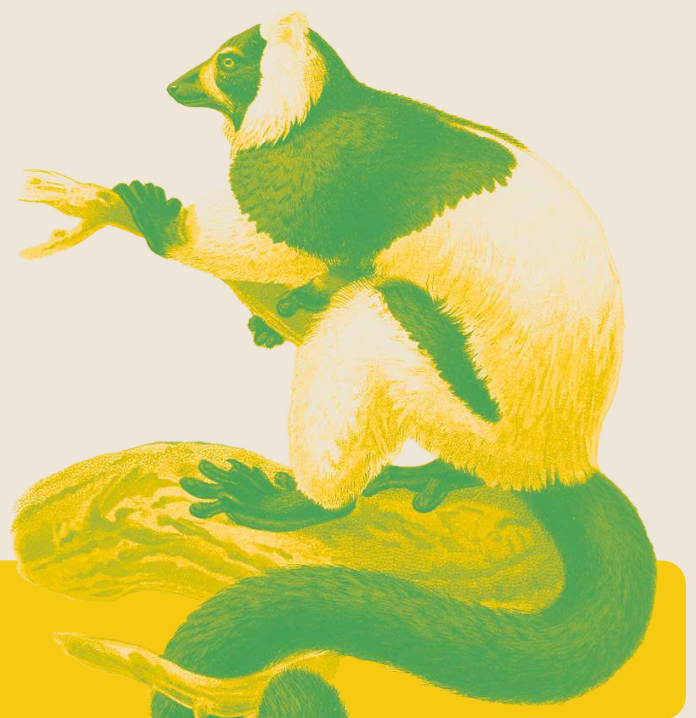
with his policy choices, but stressed that we do have one common goal – to make the world a better place, even if we have different theories of change. I also had the opportunity of meeting and [interviewing VP Kamala Harris](#) that day. I asked her opinion on how banning critical race theory affected our environmental justice efforts. She told me that we as young people have to demand justice, and I realized that the work I'd done as a communicator was to do just that.

It was a privilege to use my social media platform to communicate my learnings. And although I don't agree with many politicians today – voting does work. It is important to get the youth vote out there, which is why the purpose of my visit to the White House was to educate. It's hard. It's frustrating. It's contradicting. But after meeting so many young people at the White House, I knew that all of us were working to create change. That trip was one of the most memorable moments of my life.

Young people face the multifaceted impacts of the climate crisis in every aspect of their lives. The Youth Climate Movement has evolved over the years, dynamically adapting its strategies to make its voice heard and effect change. But until this day, there remains a gap between youth activism and the required institutional response, beyond tokenistic praise from those in power.

**RECOMMENDATION:** It is crucial that we not only listen to young climate advocates but integrate their insights, solutions, and demands into global policies and strategies, as well as providing them with the necessary support and tools – including effective communication strategies and climate education. The ripple effects of youth activism are immeasurable and have undeniably shifted global action, turning the climate crisis from a distant problem to an immediate concern. As the urgency of the

climate crisis escalates, the world must harness the power of youth activism – ensuring that their voices play a central part in climate conversations.



## MEET THE YOUNG LIONS MARKETING WINNERS OF 2023

BY ISAIAS HERNANDEZ

FOUNDER OF QUEER BROWN VEGAN

In June 2023, we participated in the Young Lions competition – working to develop a transformative climate communications brief for New Zero World, with the aim to get a broader section of the public involved in the climate movement. The campaign focused primarily on Gen Z and Millennials, conveying the message that action on climate and sustainability can take many different forms – and that there is a role for everyone.

The Young Lions competition brings together world-leading creatives from around the world, giving young professionals the opportunity to showcase their talent and achievements. Teams are being given 24 hours to work on briefs across different areas – media, marketing, film, PR, digital and design – with all entries judged by members of the Cannes Lions Juries live during the festival.

Prior to Cannes Lions, our views on climate change reflected those of the average person: We knew the world was in crisis, but we did not feel that our individual actions would make a substantial impact in the overall fight. We knew that the world is currently experiencing high temperature fluctuations, and we also knew that extreme weather events were becoming more common. After Cannes, we felt we knew more about specific aspects of the overall crisis: Human emissions of heat-trapping gasses have already warmed the climate by 2 degrees Fahrenheit, and we found out global temperature rise is expected to exceed 3 degrees F within the next few decades.

Outside of key facts, our most important takeaway was that action is needed – not just by a few individuals, but by industries to participate in a collective fight. We feel that New Zero World is specifically well-positioned to be the central voice of collective action in the fight that needs united contributions. In Cannes, we also quickly learned about the pessimistic nature of today's climate change narrative. Post Cannes, we felt empowered to make a difference by changing the narrative to a more positive, optimistic view of our potential future.

The Cannes Young Lions brief was our first climate focused co-campaign, and it opened our eyes to the dire nature of the crisis and the immediate action we need to collectively take. We both are hoping to get our organization and ourselves more involved with climate-focused campaigns – because if we don't drive action now, there could be no turning back. We left Cannes feeling excited to learn more about what our partners and similar organizations are doing to fight climate change, and we're excited to help shape a more positive, action-oriented narrative through future work.

The business case for advertising to focus on climate change is simple: this issue affects the whole world, and has the potential for global, collective involvement. It's rare to have a cause that touches every single individual on the planet, and companies similar to ours have the opportunity to capitalize on this shared purpose to engage the largest audience. Research has shown that younger audiences – including the most important advertising demographic – care not only about the climate crisis, but also what their preferred brands are doing socially to drive action forward. From the perspective of a young professional in the creative industry, climate change is a key topic and will continue to be an essential vertical in the advertising field.

Powerful, action-based messaging and a call to collective climate leadership will be key to engaging more young creatives in the fight against the climate crisis. When young people realize they're in a fight for their own survival, and they have the power to change the outcome, they'll be more interested in working on influential briefs that could change the future



### 8.3 INFLUENCING THE INFLUENCERS

In the digital age, influencers play a big role in how people think and feel about the climate crisis, and whether they act on it. Influencers' vast platforms – often reaching millions of followers – allow them to share information, shape public opinion, and inspire action, often on a global scale. When celebrities like Leonardo DiCaprio, Emma Watson and Jane Fonda advocate for policy change, they not only raise

awareness but legitimize them in the public eye. Influencers and celebrities have the power to bridge the gap between the science community and mainstream, by communicating in accessible and relatable ways. By using their personal stories and experiences, they can motivate individual behavior change as well as engagement in activism.

## RECRUIT CELEBRITIES, INFLUENCERS, AND CULTURAL FIGURES.

**They attract attention and have large followings. Recruit athletes, actors, rock stars, CEOs, and YouTube and Instagram influencers to promote your message.**

**Think Lady Gaga on LGBTQ+ rights,**

**Leonardo DiCaprio on climate,**

**John Legend on criminal justice reform.**



Figure 130: David Fenton's Communication Rules for Activists.



# INFLUENCING CHANGE

BY JOEL BACH

EXECUTIVE DIRECTOR OF THE YEARS PROJECT

We have come to understand that when communicating the climate issue to either a specific audience or the general public, quality storytelling and messaging do matter – but distribution matters more. It doesn't matter how good your content is if no one sees it. To overcome this problem and counter the ever-shifting social media algorithms, we have created a multi-pronged distribution model: employ paid ads to reach specific eyeballs, share our work broadly among the climate community, and build a network of climate-minded influencers. Our initiative The Network has 155 members and a combined social media reach of more than 500 million people. Each week we disseminate the most pressing climate messages, tweets, videos and other posts to The Network, so its members can then share that information with their followers.

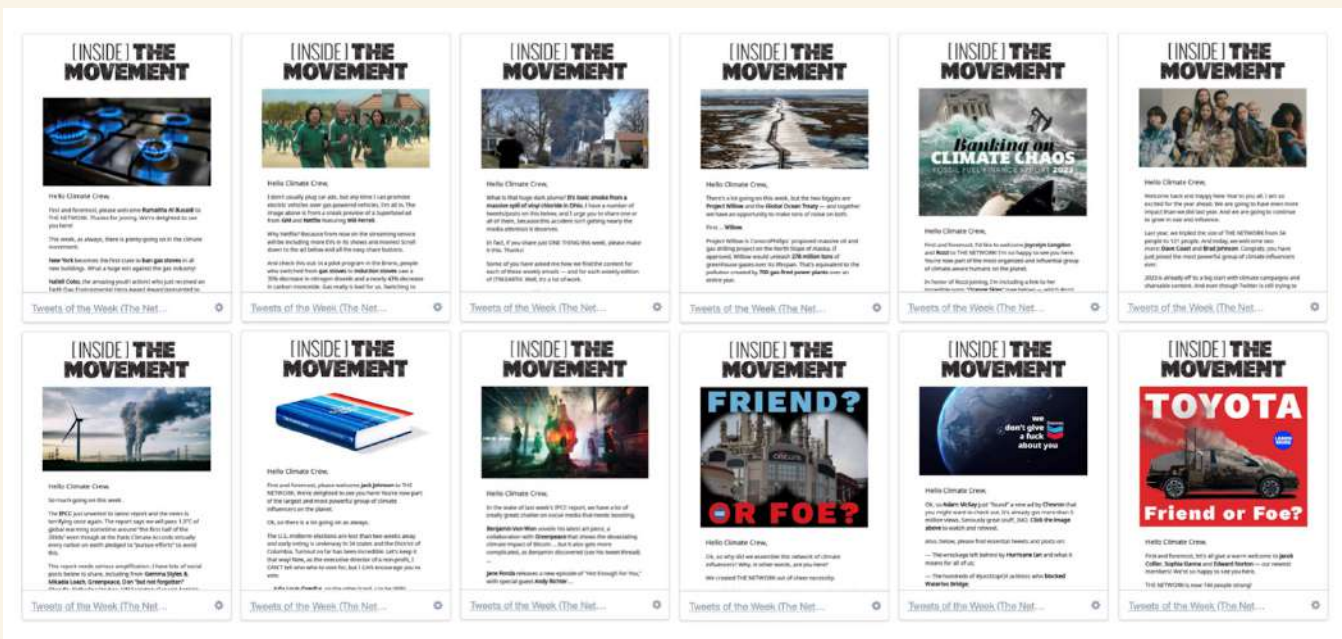


Figure 131: The Network project dissemination materials. Source: The Network.

The strategy has been wildly successful, with the vast majority of our members opening the emails and reviewing the content each week, and an equally large percentage sharing what they see on their social channels. Our goal is to double the size of The Network each year and create a distribution machine that, at low cost, will be able to reach billions of people with actions, messages and content to save our struggling planet. We will also use this powerful tool to continually reinforce our central message – that it is not the job of the individual to stop the climate crisis. Rather, it is the job of companies, institutions and governments. The job of the individual is to remind companies, institutions and governments of this fact.

To help make this communications goal a reality, we recently partnered with Academy Award-winning director and producer, Adam McKay, whose credits include *Don't Look Up* and *Succession*. Once we merge his list of influencers with ours, we will be even better positioned to amplify our work and his and, most importantly, be better able to lift up the critically important challenges and successes of the broader climate movement.

The use of role models and influencers is particularly effective in engaging people in climate change issues. While scientists and governments provide climate change facts and proposed policies, it will be down to influencers to amplify those facts - for example, celebrities, social influencers, faith-based organizations, NGOs, business, news media and hyperlocal actors. Sometimes a tradeoff will need to be made between trusted messengers and messengers with high reach, even if they are generally trusted less. These groups include, for example, celebrities, national political leaders, and news media.<sup>276</sup> Involving faith communities was a crucial component in the success of COVID-19 Collaborative, and they are increasingly recognized as a key player in the climate space, too.

Relatable role models are especially crucial when communicating with younger audiences, who often feel that their friends lack interest in climate change.<sup>333</sup> The role of influencers is receiving a lot of academic interest, such as the

University of Sheffield's use of virtual influencers for public attitude and behavior change through creative communications,<sup>334</sup> which holds potential to prevent misinformation frequently spread by real influencers. The digital landscape has recently shifted from large-scale influencers to micro-influencers (with a following of between 1,000 and 100,000), who enjoy greater credibility with their audience as they tend to focus on niche areas. Sixty-one percent of US consumers perceive those influencer communities as more trustworthy than brands.<sup>296</sup>



# GOOD NEWS, PLANET EARTH

BY SAM BENTLEY

CLIMATE ACTIVIST AND SUSTAINABILITY CONTENT CREATOR

"I'm a social media content creator and an advocate for sustainability and positive change, who has been working in social media for over a decade at the forefront of social video. I create videos that showcase the good news and solutions that are moving us towards a more sustainable future. My goal is to inform, educate and inspire others to take action by sharing stories that may not have been widely reported, as well as to amplify the voices of change-makers working tirelessly to create a better future for us all. I do this through my social channels, predominantly Instagram and TikTok, that have a combined following of 1.8 million followers. I grew my following through posting consistent, digestible, high quality content that's tailored to social media.

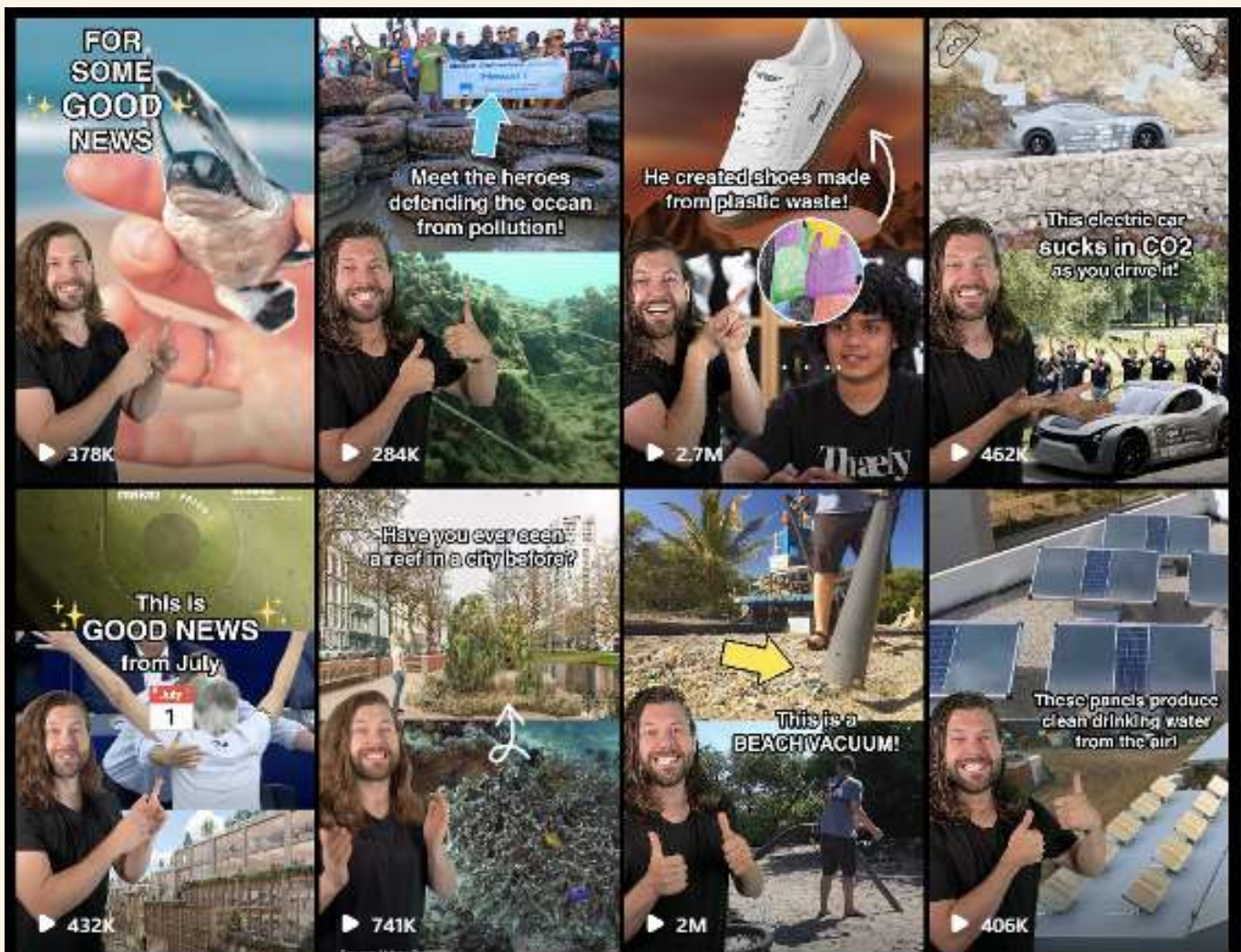


Figure 132A: Sam Bentley's Instagram and TikTok videos.

Whilst my content reaches a wide range of demographics, there are a couple of key demographics I notice that are particularly engaged with it. The first of those is people in the education space, whether it's a teacher looking for easy-to-understand resources to share in their classroom, parents looking for hopeful stories to share with their children, or students looking for guidance or topics to introduce in their studies. The second is those new to sustainability but eager to learn more. My content may be people's first point of contact with sustainability issues, and my intention with it is to be a much-needed stepping stone for viewers to dive deeper into any topic that resonates with them.

My climate communication approach is particularly effective because I prioritize digestible and relatable content, both textually and visually. I'm a perfectionist when it comes to designing social video, prioritizing video clips that best tell the story, hooking the watcher within the first 5 seconds. Many find the language used in the sustainable space inaccessible in many cases and don't feel they can have a seat at the table. I familiarize viewers with popular phrases or words used in the climate and sustainability space. So they feel more comfortable being part of important conversations surrounding environmental topics. Sustainability jargon often feels alienating, so I help viewers understand it, promoting more inclusive environmental dialogues. Coming from outside the sustainability field allows me to bridge the gap between data and public understanding. I hope I can be an important intersection between the two.



Figure 132B: *The End of Plastic Packaging*, by Sam Bentley.

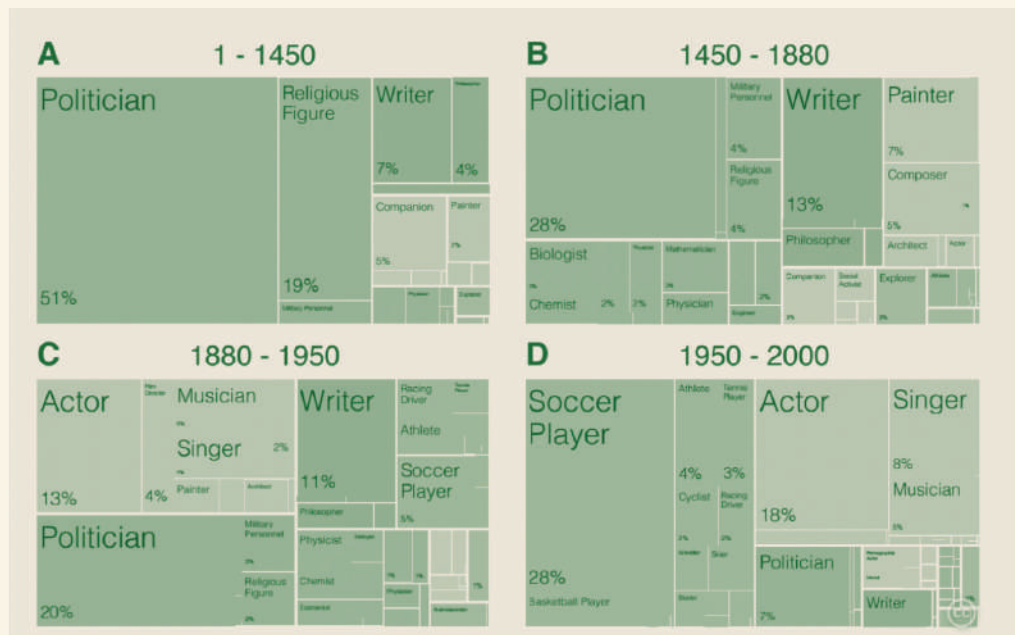
I believe it's important to present climate wins and solutions, as they are vastly under-repre-



sented in the media. For people to see others, like them, taking action and making tangible change is far more empowering than being told about climate disasters over and over again. Over time, people just become numb and disengaged, and we cannot afford at this point in time to have a population of beings who are disassociating with the very serious realities we are facing.

Every single person can be part of positive change and help create a better future for the next generations. We just need to equip them with the right tools to make that change.”

Research on influential figures throughout history by MIT showed that while politicians and writers were two of the most represented groups in the nineteenth century, there have been massive shifts following the rise of television and the internet. Footballers, actors and other celebrities have now taken scientists’ place as the most influential voices - which means we urgently need them on board to communicate the climate message.<sup>335</sup>



Occupation of historical characters from different periods

Source: MIT

Credit: C. Jara-Figueroa

Figure 133: Occupations of historical characters from different periods. Source: C. Jara-Figueroa, MIT

In 2016, UN Climate Change introduced the Sports for Climate Action initiative, inviting sports organizations and stakeholders to unite in combating climate change and promoting a low carbon economy. The campaign encourages organizations to commit to climate neutrality to inspire action beyond the sports sector. Participants are asked to adhere to five core principles and collaborate to spotlight climate solutions, with UN Climate Change facilitating and

tracking their progress. Signatories are expected to establish climate action strategies, reduce greenhouse gas emissions, and commit to specific goals of halving emissions by 2030 and achieving net-zero emissions by 2040. By adopting these ambitious yet attainable targets, the sports industry can position itself as a driving force in climate action and contribute to the global Race to Zero campaign.<sup>336</sup>

### CASE STUDY: CLIMATE STRIPES ON THE PITCH

English football club Reading FC made headlines in January 2023 after wearing climate stripes on their sleeves during a Premier League game. The Climate Stripes were originally designed by University of Reading's professor Ed Hawkins - each stripe represents annual average temperatures from 1850 until 2022. Shades of blue indicate cooler than average temperatures, while red stripes stand for hotter than average years. The design was explained by the game's lead commentator to an audience of more than two million people in the first half of the game, and was retweeted by professionals around the world.<sup>337</sup>



Figure 134: Climate stripes used in sports. Credit: JasonPIX.

As social influencers start engaging in climate communication, authenticity will be of utmost importance. By sharing their personal stories and experiences related to the climate crisis, they can create a sense of connection and inspire their audiences to take action. This approach not only helps to build trust between the messenger and their audience, but also emphasizes the personal relevance and urgency of climate issues.

name. Across generations, people are willing to spend at least 10% more for a sustainable product.<sup>308</sup> Another study from Belgium confirms that following environmental influencers increases pro-environmental intentions, which spill over into offline behavior. The positive effects of influencers do not stop at eco-friendly behaviors – their content can present a “gateway” for followers, eventually leading to real-life political participation and engagement.<sup>339</sup>



**78%**

of TikTok and Instagram users say that influencers have the single biggest impact on their choices to be more environmentally friendly



**75%**

of users say that social media content made them more likely to adopt sustainable behaviors

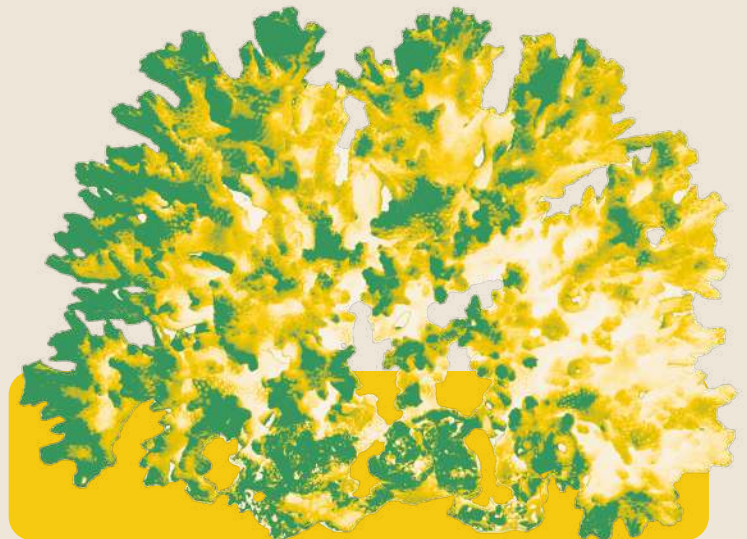


**83%**

think that TikTok and Instagram, are helpful places to seek out advice on how to be greener at home

Figure 135: What users say about climate change in social media.

A study by Unilever and the Behavioural Insights Team (BIT) found that people are more likely to take up sustainable habits if they see them on social media – which was found to be more influential than TV documentaries and government campaigns. Branded content was seen as just as engaging, authentic and informative as unbranded content.<sup>338</sup> Especially for young people, social media is a great way to authentically connect on sustainability issues, with 75% of GenZers prioritizing sustainability over brand



## CLIMATE INFLUENCERS HAVE A PROBLEM

BY ISAIAS HERNANDEZ

FOUNDER OF QUEER BROWN VEGAN

Eco-influencers or climate influencers represent a niche within the creator economy of various activist communities focusing primarily on communications work. Much like my work on QueerBrownVegan, they use a mix of video, photo, or illustrations to drive their missions and organizations – albeit with a social or ecological foundation. Many climate influencers have created organizations and are running their platforms based on their existing work or careers – including youth climate activists. Much of the eco-influencer<sup>340</sup> landscape is communication work that orients around awareness, which is a precursor to action – which stands in stark contrast with social media at large, which is designed to maximize screen time. Many influencers, myself included, share and promote product ads due to a need for more funding models to sustain our work. For myself, advertising or promotional agreements support my work, fund my team, and support my family. The role of an eco-influencer has changed from one individual telling you about more sustainable products to varying layers of entrepreneurship, storytelling, and thought leadership. The majority of my work focuses on working with academic institutions to communicate climate science, implementing climate education programs at museums across the states, and creating curriculum-based environmental justice courses with non-profits. However, this work is typically behind the scenes and not publicized.

Climate influencers deal with a lot of criticism from inside the movement, labeling them as individualist – I disagree with this notion. Coming from a frontline community, I began my environmental justice work by doing language translation in high school. When we make blanket statements like, “online activism isn’t real activism,” that can contribute to erasing people’s work – including those who are disabled and immunocompromised from COVID-19, for whom engaging in physical spaces means compromising their safety.

However, there are power imbalances in how online activism is now valued higher than offline activism. Grassroots organizers and organizations have highly relevant data and case studies showcasing how injustices were fought & what was demanded. Social media commonly limits the visibility of those stories and solutions, especially with a bias toward short-form content. This is why those who continue to practice local grassroots activism must also be elevated to share the real-world examples & work being done on campaigns to create change.

Our issue is not climate influencers, but dominant influencer culture. I am conscious that by upholding it to an extent, I am a part of that problem. The creator economy thrives on the commodification of the individual communities, leading to people being put on pedestals – and the environmental movement isn’t exempt from human ego. What climate influencers can commit to is developing long-term marketing strategies that provide support for grassroots organizations and activists to elevate their voices.



Figure 136: The problem with climate influencers.  
Source: Isaias Hernandez, in YouTube.

Climate influencers present a unique opportunity of building grassroots and independent media that focuses on justice, equity, and ethics. But we can do a better job of amplifying grassroots movements. Building an ethical social media system must ensure that resources and investment are directed to the right places, and that those doing the important ground-work are amplified alongside influencers.

But influencers can also become part of the problem, as an investigation by DeSmog found recently. Oil and gas companies such as Shell and BP have been working with influencers in the UK to improve their image and provide misleading solutions to the climate crisis.<sup>48</sup> These strategies aim to emotionally connect with millennials and counter their negative perceptions. DeSmog's research found that over 100 influencers globally had been paid to endorse fossil fuel companies since 2017 – reaching billions of people<sup>48</sup> (see 2.1).

The consequences of these partnerships are concerning, with promotional content from PR firms working for Shell claiming that their campaigns made audiences more likely to view Shell

as an advocate for cleaner energy solutions.<sup>48</sup> While influencers hold the power to promote climate action and sustainability, their reach comes with a responsibility to not abuse their audience's trust to greenwash polluting companies.

Such digital tactics have been on the rise, especially when major polluters aim to overshadow negative press regarding their profits and contributions to climate change. For instance, BP's internal documents from 2020 revealed their strategy to engage influencers to resonate with and gain trust from younger generations.<sup>48</sup> Shell – who have backtracked on their climate commitments after announcing record profits<sup>341</sup> – have also been active in the influencer market.<sup>48</sup>

### CASE STUDY: HOW COLDPLAY HELPED PROTECT THE AMAZON RAINFOREST

In 2019, the Amazon rainforest experienced over 30,000 fires driven by deforestation and climate change – threatening ecosystems, communities, and its status as the “lungs of our planet”. In response to these challenges, the rock band Coldplay, as long-standing advocates of Global Citizen, harnessed their influence in 2021 to motivate [action against rapid deforestation and climate change](#). The band reached out to government leaders of eight Brazilian states via Twitter, inspiring thousands to rally Coldplay, Global Citizen and environmental organizations, urging Brazilian governments to safeguard this vital ecosystem. As a result, six out of eight states – including areas notorious for deforestation – committed to ambitious emissions reductions and the protection of over 1.7 million hectares of forest, benefitting both the environment and Indigenous communities. These commitments demonstrate the power of influential figures like Coldplay in driving global change.



*Figure 137: Coldplay's efforts in helping protect the Amazon Rainforest.  
Source: Global Citizen.*

Social media influencers are a force to be reckoned with, and an under-utilized group of spokespeople in the climate community. Some groups are starting to recognize their power to deliver impactful messages – for example, the Fossil Fuel Non-Proliferation Treaty Initiative’s network of Treat Champions features a number of activist influencers, as well as celebrities like Emma Watson and pop band SOFI TUKKER. With their wide reach, influencers can help amplify key messages, make climate a personal issue for a greater number of people, and instill a sense of urgency. But as other groups of spokespeople, they need support in discerning between genuine calls for climate action and greenwashing, as well as advice on effective lines of messaging – as evidenced in the recent controversies around influencer marketing for

fossil fuels or fast fashion companies. Authenticity, transparency and integrity will be key in reaching and mobilizing new audiences – but our efforts will require not only influencers and key spokespeople, but all of us.

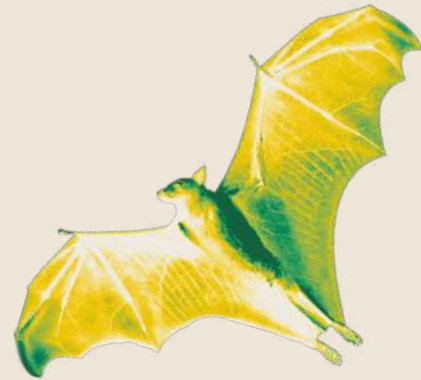


## 8.4 ALL HANDS ON DECK

The power to inspire, drive change, and make a difference is within each of us. Regardless of our profession, every job has the potential to become a climate job. Over the last few years, we've witnessed the transformative potential of determined individuals and successful campaigns. Now, it's time to use our unique skills and superpowers to push for impactful changes to tackle the climate crisis.

As history has shown us, harnessing the collective will and enthusiasm of diverse groups is the path to achieve transformation. From urban planners to campaigners working with NGOs,

everyone has a role to play. The climate crisis requires us to be a united force – drawing from the lessons of the past, the innovations of the present, and the possibilities of the future.



### RETURNING TO COMMUNITY

BY WILL TRAVIS

FOUNDER OF ELEVATION BARN

The term 'community' has been diluted, losing the essence of togetherness. Community is more than a cluster of LinkedIn profiles, it's a collective driven by common goals. Elevation Barn is focused on building such purpose-driven communities, tackling challenges larger than ourselves and necessitating unity for meaningful change. The moment we start siloing ourselves, believing we're the only ones capable of achieving something, we lose sight of others' skills and contributions.

Consider building a raft – you can't accomplish it single-handedly. Everyone has a part to play, pulling ropes, gathering materials. It's the embodiment of collaborative action and impact. This bonding happens at our retreats. But it's about more than mere bonding; it's the power of collective impact. What we need is a safe space for united collaboration and shared problem-solving, something our Barns strive to provide. We foster diversity of thought, supporting those who feel isolated and overwhelmed by global challenges and reminding them they aren't alone – we can help each other, and the joy isn't in business itself but in the impact it can generate.

Collaboration is not only possible but fundamental, as seen both in nature and human societies – from child-rearing to gardening. We're not designed to operate in solitude. We thrive in collective and diverse thinking, and many global change makers are known not for their solo efforts, but for their collaborative mindset.



Governmental action in climate change is still lagging behind: countries have committed to the goals set by the Paris Agreement, however there is a mismatch between actions taken and the objectives. In this context, metropolitan areas have become more relevant, as they host around 55% of the world's population. Cities have gained a prominent role in tackling climate change, by establishing the C40 Cities Climate Leadership and adopting the New Urban Agenda, focusing on sustainable urban planning, job creation and improved quality of life. Cities like Barcelona have been actively working on promoting sustainable mobility, inclusive policies on housing, social inclusion and gender equality.<sup>342</sup>

However, to create equitable, holistic and representative solutions to the current state of the world, every group in society will need to be engaged and consulted in a way that is accessible and relevant to their lived experience. Especially historically marginalized groups such as people of color, disabled, LGBTQ+, working class, religious groups, Tribal communities and women will need to be actively involved in communications as they tend to be under-represented both in climate conversations and decision-making spaces.



Figure 136: The problem with climate influencers.  
Source: Isaias Hernandez, in YouTube.

## THE IMPORTANCE OF YOUTH INVOLVEMENT IN SHAPING CLIMATE COMMUNICATION

BY WILL TRAVIS

FOUNDER OF ELEVATION BARN

Involving young people in UNFCCC processes is critical - the most recent IPCC report showed that the groups that will be most affected by a hotter world are the current and the future generations. In our current trajectory that we're in with current ambitions and commitments, we are heading towards warming of 2.8 degrees Celsius - but in order to prevent places from becoming uninhabitable, we need to limit that to 1.5 degrees. The UN recently recognized the right to a healthy and safe environment - so we also need to recognize that climate action is our human right, upon which our physical and mental health and well-being depends.

There are many challenges for young people in climate policy spaces. Tokenism is a problem, and there are spaces where we are invited but not informed or given the opportunity to speak. There is a shift in narrative happening, away from just having young representatives in country delegations, and towards actually having young climate negotiators negotiating on behalf of their countries and commenting on the decisions that are being made. It's important to have young people in meaningful leadership positions, and to be seen beyond our age, but based on our expertise.

Policymakers can help amplify the voices of young people by going beyond consultations and involve us in developing countries' climate action plans or policies for adaptation and mitigation. These policies have to be done in co-creation with young people or young experts in the field, who already work at the grassroots level within their communities - especially those in the most affected and vulnerable areas. We need meaningful opportunities to be involved and represent our communities. Working with young people around climate awareness and building resilience is so important to address the distress that especially young people feel because of the lack of political inaction towards climate change. A true Net Zero transformation will require to go beyond tokenism and really work together with young people in an honest and accountable way.

Deliberative mini-publics have been gaining traction as an effective method for co-producing policy knowledge by involving diverse, randomly selected lay-people in idea exchange processes. Deliberative democracy platforms empower citizens to shape climate change policies by allowing them to delve into complex issues, better understand their dimensions, and form more informed and reflective opinions,

thus enhancing democratic legitimacy of public participation and support for ambitious climate policies.<sup>343</sup>

In climate policy, people's assemblies have been growing in popularity as an alternative to more traditional forms of legislation. Chosen through sortition to reflect broader population demographics, a group of 50-150 participants comes

together for a day (or several days) for a deliberation process on a certain question (for example: “How should the local area respond to climate change?”).<sup>344</sup> Usually, this looks like being presented with evidence by leading scientists, allowing time to delve into the complexity of an issue. Participants then split up into focus groups (such as travel, energy, agriculture and entertainment) to create informed views. Proposals are then taken to the whole group and voted on. People’s assemblies have been formed in some countries, such as the UK and Germany, but are as yet only advisory in nature.



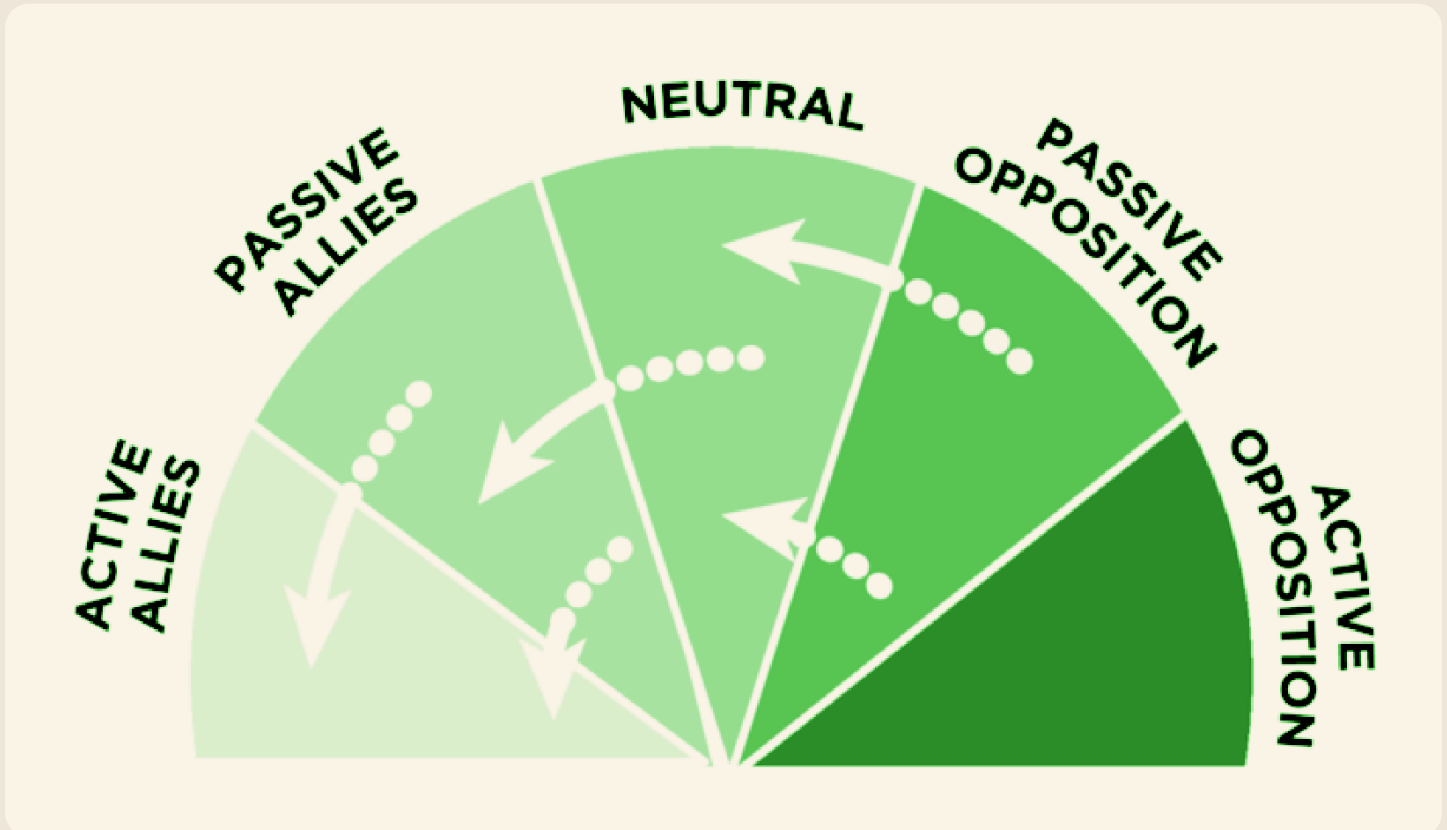


Figure 139: Spectrum of Allies according to George Lakey, in *Training for Change*.  
Source: *Beautiful Trouble*.

Research by ACT outlines how NGOs and campaigners can build a stronger mandate for climate action and build a more diverse and powerful movement by engaging with those who are not yet engaged in climate issues – the “persuadables”. To do this, NGOs need to adapt their communications strategies and engage with potential supporters more effectively, utilizing the information sources they consume and trust, as well as framing climate action in ways they can relate to. Because while a warming planet will affect all of our lives, the majority of people are focused on other things that matter to them more acutely. NGOs must engage with the issues that people care about the most – such as local heritage and employment – and combine messages of hope with pragmatic plans that demonstrate how climate action will provide benefits to people and their communities.



## CASE STUDY: FOSSIL FUEL NON-PROLIFERATION TREATY INITIATIVE

The Fossil Fuel Non-Proliferation Treaty Initiative advocates for a binding international commitment to halt the growth of fossil fuel exploration, ensuring a just and swift transition to clean energy. Despite widespread climate and emissions reduction targets in the last three decades, the fossil fuel industry has continued to expand – emphasizing the need for a global treaty to stop new developments. Research confirms that using the current reserves of fossil fuels would drastically exceed safe global heating limits.

The initiative, representing a globally endorsed idea rather than just an organization, proposes a unified approach similar to past nuclear and landmine reduction treaties. To foster accountability, a Global Registry of Fossil Fuels will be established, providing transparent data on fossil fuel reserves. Supported by a diverse coalition, including governments, NGOs, the World Health Organization, the European Parliament, and notable global figures including scientists, Nobel laureates, influencers and celebrities, the treaty embodies a collective call to address the climate crisis, aligning with other global efforts and the goals of the Paris Agreement.

Climate Venn Diagram by  
Dr Ayana Elizabeth Johnson



Figure 140: Climate Venn Diagram by Dr Ayana Elizabeth Johnson

Most of the solutions to climate change already exist - what's missing is political will and large scale civic engagement. Project Drawdown is an expert-led project listing one hundred evidence-based climate solutions which are already available and can help the world reach ambitious climate targets by avoiding emissions and/or by sequestering carbon dioxide already

in the atmosphere. But we believe that to build a truly transformed society, we need both climate experts and creative industries to work collaboratively. Brands can help make climate communication campaigns more human, and in some cases have demonstrated their power to influence national-scale policy through the power of collaboration.

### CASE STUDY: HOW PATAGONIA HELPED PROTECT ONE OF EUROPE'S LAST WILD RIVERS

In March 2023, the Vjosa River, one of Europe's last untamed rivers stretching over 400 kilometres from the Pindus Mountains in Greece to the Albanian Adriatic coast, was designated as Europe's first Wild River National Park. This decision was a testament to the collaborative energy between communities, brands, and policy makers, namely environmental NGOs from the Save the Blue Heart of Europe campaign, Patagonia, IUCN as well as local and global experts.

By prioritizing the conservation of the Vjosa as a free-flowing river ecosystem abundant with over 1,100 animal species, some of which are globally threatened, this initiative embodies the essence of shared responsibility in environmental stewardship. The National Park not only aims to mitigate environmental challenges like pollution and deforestation, but also seeks to support the local economy through sustainable tourism. In this campaign, Patagonia, which has been a fervent supporter of this cause, exemplifies the pivotal role of brands in ecological advocacy – using both financial contributions and media outlets, including documentaries, to raise awareness and realize the vision of the Vjosa Wild River National Park.



Figure 141: Vjosa River in Albania, where plans of a dam construction were planned but withdrawn by the administrative court in Tirana. Credit: Andrew Burr

Addressing the climate crisis demands the collaboration of every individual, organization, and institution. Whether it's by integrating sustainable practices into our professional lives, or by channeling our strengths and passions into climate action – we each have an important role to play. Our approach to addressing the crisis should not only be comprehensive but also inclusive: History has repeatedly illustrated the strength that lies in unity, especially when confronting seemingly insurmountable challenges.

Our call, therefore, is not just for passive understanding, but for active engagement in climate communication and advocacy. Every conversation counts. Every action, no matter how minute, can ripple into a wave of change. We are at a moment in time where transformative solutions are within grasp, but they require collective action to be made reality. We must hone our skills as communicators and change makers, actively involve and amplify the voices of the historically marginalized, and come together around a shared vision for a sustainable future.

The tools, strategies, and innovations are in our hands. Now we need all hands on deck – united in purpose and driven by urgency, and the knowledge that a better future is entirely possible.



## WHAT'S NEXT FOR THE CLIMATE MOVEMENT?

BY WILL TRAVIS

FOUNDER OF ELEVATION BARN

My advice to climate advocates is to seek out the joy and hope amidst the despair and apathy. When Amnesty International was presenting its Ambassador of Consciousness award to Fridays for Future, in Washington DC in 2019, I urged Greta Thunberg and her colleagues to not let the inaction of our political and business leaders lead them to despair and deprive you of your childhood. Instead, I stressed to them to make sure that they are active in the struggle in a way that allows them to sing, dance, laugh, and build community.

The scale of change that we are talking about will require a scale of participation, both in terms of pushing for solutions, but also creating solutions that we've never seen before. It is currently important that we realize that this participation is important for two reasons. One is it gives us the scale of participation which makes it impossible for people in power to ignore. Secondly, we need it for our emotional and psychological resilience as climate anxiety grows on an almost exponential basis. Our ability to open pathways for people to participate in the climate struggle is going to be critically important to building psychological resilience as extreme weather events continue to grow with increasing frequency and ferocity.

As the urgency of the climate crisis grows, climate movements have been increasingly attracting the participation of young people, but at the same time misinformation and disinformation has also been growing. If the climate movement wants to continue this growth and bring more people into its spheres of participation, it needs to step away from the technocratic, often jargonistic language and communication that has been used in mainstream climate advocacy. The climate movement needs to adopt a more people-centric way of communicating its analysis, ideas and solutions.

This is where the power of arts and culture need to be harnessed. Arts and culture give us the ability to speak to people on a more human level. This is not to functionalize the work and engagement of arts and culture, but it is about ensuring that arts and culture are ingrained in the work of activism. We need arts and culture to hold up a mirror to what activism is doing in the world. The amazing power of arts and Culture on its own will not deliver us climate salvation, however without harnessing its full potential we certainly will not rise to the biggest challenge humanity has ever faced.



# CHAPTER 9 - RE:START

## A NEW ERA IN CLIMATE COMMUNICATIONS

---



## 9.RE:START

### 9.1 IN CONCLUSION

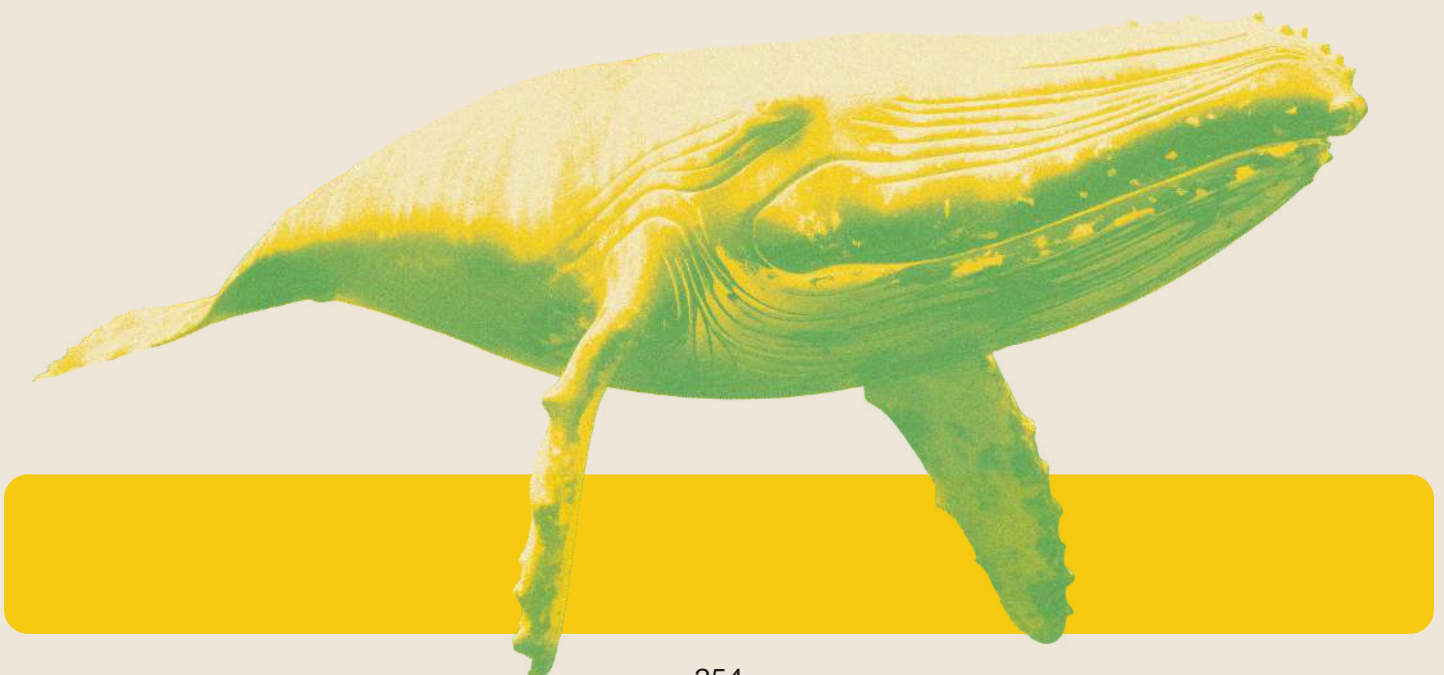
A global communications effort has been recommended by experts across the climate sphere: The UNFCCC's Article 6, known as "Action for Climate Empowerment", obliges all nations to engage their citizens on climate change. This commitment is also part of the 2015 Paris Agreement and has contributed to ongoing dialogue and guidelines for climate education, training, and public awareness. While momentum for this crucial challenge is building, government buy-in and capacity need strengthening. Organizations around the world have recommended a global climate communications league to monitor and assess climate communication efforts, showcase best practices, & encourage collaboration for effective engagement.

The wider climate community, including governments and non-governmental organizations, must recognize the importance of effective climate communication as a secret weapon in the fight against climate change. By effectively communicating the urgent need for action alongside the benefits of transitioning to a low-carbon economy, we can bridge the gap between scientific research and public understanding, and mobilize individuals, communities and policymakers to take meaningful action.

Yet, the climate crisis is, in part, a crisis of imagination and storytelling. As communicators and creatives, we have a now-or-never opportunity to be bold, irreverent, passionate – to inspire people to close the action gap and accelerate urgent change. Together we can harness one of humanity's superpowers, imagination, to spur another superpower, collective action.

It is our responsibility to create these new stories that inspire us to build a more sustainable future designed for the well-being of all. To do so, we need to work with human nature, not against it. By tapping into our hope, empathy, desires and pride we can reshape the attitudes and behaviors that become our habits, lifestyles and cultures.

To create this shift towards a more sustainable future, we need to inspire the public imagination and emotions. The media and creative industries have a unique ability to captivate audiences through their superpowers of storytelling, entertainment and engagement. From films and TV to advertising and social media, they have the power to shape public opinion and drive change. By involving these industries in the conversation and leveraging their influence, we can inspire people to be part of the solution.



By connecting cutting-edge scientific insights, world-class creativity, and ground-up community efforts, we possess the tools necessary to reshape the climate narrative. We will do so by mobilizing a climate communications collaborative, which will bring together experts and stakeholders from a diversity of fields to develop and implement creative campaigns that engage and mobilize the public. By deploying evidence-based communication strategies and pooling resources, we will aim to reach a wider audience, including those who are not engaged with climate issues yet.

Values-based, culturally significant, and appropriate messaging play a vital role in engaging people with climate change, especially when combined with storytelling approaches. Effective approaches should reflect people's interests and concerns, and frames must be tailored to the local context. We can achieve this through working with existing climate communicators such as journalists and educators, as

well enlisting the help of cultural icons and social influencers. Meeting people where they're at will be essential in supercharging engagement and shaping our vision for a better future.



## 9.RE:START

### 9.2 RECOMMENDATIONS

The climate crisis is the biggest threat facing humanity – but also our biggest opportunity to build a better and more sustainable future. But to do this, we have to recognize the need to Refocus. The climate crisis is not an isolated issue – it is intricately connected with social justice, economic stability, and the natural ecosystems that sustain all life on earth. To tackle this polycrisis effectively, we need to view it through a multifaceted and intersectional lens.

To address what led to the lack of active engagement and literacy we see today, we must Rewind – understanding the long history of misinformation from the fossil fuel sector, compounded by greenwashing brands and industries, as well as initiatives which effectively challenge practices undermining our collective sustainability efforts. By understanding these challenges better, we can build new frameworks which are more resilient against the threats of misinformation and greenwashing.

Many of the climate narratives we use are not necessarily the most effective, and often distant from the lived experience of many people. It is time to Rethink these narratives, structuring them in a way that resonates with the public.

To truly master the craft of impactful communication, we must delve deeper – aiming to Rewire our understanding of how our brains process climate change messages. With insights from psychology and neuroscience, we can create campaigns that resonate with the masses.



Our call to Recreate climate communications is not just an option, but a necessity – by framing our messages in a way that balances urgency with hope and actionable steps, we can empower our audiences, fostering a sense of agency and inspiring collective action.

It doesn't stop at redesigning our messages – we must also Reimagine our visions of the future. Drawing from the world-class expertise of media, advertising and marketing – and their Brainprint – creatives can supercharge climate communications, literacy and action alike.

The creative industry holds enormous promise to lead this transformation and emphasize the case for sustainability in the business community – inspiring a global effort to Recommit to a sharp focus on sustainability and genuine transformation.

Transformation isn't just about adapting – it's about facing reality and acting upon it. We must Resist the status quo which has created this global threat we face now. The emergence of active citizenship, the power of the youth climate movement, and the rise of influences using their reach to drive climate advocacy are testimonies to this resistance.

Building on the foundations of science, creativity and advocacy, we are ready to Restart into a new era of climate communications. By learning from successful efforts in the past and harnessing their lessons, we can reimagine the future and actively build it, shaping visions that inspire and mobilize a global push for climate action.



### 9.3 LEGAL DISCLAIMER

The information in this white paper has been published on the basis of publicly available information; internal information and other sources are believed to be true, but may not be able to be verified independently and are for general guidance only. While every effort is made to ensure the accuracy and completeness of information contained, the contributors herein assume no liability for any error, omission, or inaccuracy.



# APPENDIX 1 - THE EARTH PUBLIC INFORMATION COLLABORATIVE

---

A global communications effort has been recommended by experts across the climate sphere: The UNFCCC's Article 6, known as "Action for Climate Empowerment", obliges all nations to engage their citizens on climate change. This commitment is also part of the 2015 Paris Agreement and has contributed to ongoing dialogue and guidelines for climate education, training, and public awareness. While momentum for this crucial challenge is building, government buy-in and capacity need strengthening. Organizations around the world have recommended a global climate communications league to monitor and assess climate communication efforts, showcase best practices, and encourage collaboration for effective engagement.

Convened by the Global Commons Alliance, the Earth Public Information Collaborative (EPIC) is our answer to this call. The Earth Public Information Collaborative is a global media and communications coalition to support direct public engagement in tackling the planetary emergency. EPIC mobilizes a global coalition to engage the public at unprecedented scale with public service campaigns, accurate science and reporting, and easily accessed resources for public action/solutions to protect people and the planet. By doing this, we are employing an ecosystem view to climate communications – aiming to change minds, actions, and systems alike.

# BIBLIOGRAPHY

---

1. Ewe K. Elections Around the World in 2024. TIME. Published December 28, 2023. Accessed February 13, 2024. <https://time.com/6550920/world-elections-2024/>
2. World Economic Forum. Global Risks Report 2024.; 2024. <https://www.weforum.org/publications/global-risks-report-2024/>
3. Lowenstein A. The world's biggest PR firm claims to be an expert on trust – but is it? The Guardian. <https://www.theguardian.com/business/2023/jan/15/edelman-pr-firm-davos-trust>. Published January 15, 2023. Accessed February 14, 2024.
4. Edelman. Edelman Trust Barometer Global Report 2024. <https://www.edelman.com/trust/2024/trust-barometer>
5. Botsman R. The Great Trust Shift. LinkedIn. Published December 19, 2018. Accessed February 14, 2024. <https://www.linkedin.com/pulse/great-trust-shift-rachel-botsman/>
6. Edelman. Edelman Trust Barometer Special Report 2022 - Trust and Climate Change.; 2022:58. [https://www.edelman.com/sites/g/files/aatuss191/files/2022-11/2022%20Edelman%20Trust%20Barometer%20Special%20Report%20Trust%20and%20Climate%20Change%20FINAL\\_0.pdf](https://www.edelman.com/sites/g/files/aatuss191/files/2022-11/2022%20Edelman%20Trust%20Barometer%20Special%20Report%20Trust%20and%20Climate%20Change%20FINAL_0.pdf)
7. Bushell S, Buisson GS, Workman M, Colley T. Strategic narratives in climate change: Towards a unifying narrative to address the action gap on climate change. Energy Res Soc Sci. 2017;28:39-49. doi:10.1016/j.erss.2017.04.001
8. IPCC. Synthesis Report of the IPCC Sixth Assessment Report (AR6).; 2023:85. [https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC\\_AR6\\_SYR\\_LongerReport.pdf](https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf)
9. Hausfather Z. Analysis: How well have climate models projected global warming? Carbon Brief. Published October 5, 2017. Accessed August 16, 2023. <https://www.carbonbrief.org/analysis-how-well-have-climate-models-projected-global-warming/>
10. World Economic Forum. The Global Risks Report 2023 - 18th Edition. Insight Report.; 2023. <https://www.weforum.org/reports/global-risks-report-2023/>
11. Gerretsen I. Rich countries fall \$17bn short of 2020 climate finance goal. Climate Home News. Published July 29, 2022. Accessed May 23, 2023. <https://www.climatechangenews.com/2022/07/29/rich-countries-fall-17bn-short-of-2020-climate-goal/>



12. Halm I van. Big Oil profits soared to nearly \$200bn in 2022. Energy Monitor. Published February 8, 2023. Accessed May 23, 2023.  
<https://www.energymonitor.ai/finance/big-oil-profits-soared-to-nearly-200bn-in-2022/>
13. Laan T, Geddes A, Jones N, et al. Fanning the Flames: G20 provides record financial support for fossil fuels. International Institute for Sustainable Development. Published August 22, 2023. Accessed August 27, 2023.  
<https://www.iisd.org/publications/report/fanning-flames-g20-support-of-fossil-fuels>
14. Kirk K. Fossil fuel political giving outdistances renewables 13 to one » Yale Climate Connections. Yale Climate Connections. Published January 6, 2020. Accessed August 27, 2023.  
<http://yaleclimateconnections.org/2020/01/fossil-fuel-political-giving-outdistances-renewables-13-to-one/>
15. Oil Change International. Dirty Energy Dominance: dependant on Denial - How the U.S. Fossil Fuel Industry depends on subsidies and climate denial. Published online 2017.  
[https://priceofoil.org/content/uploads/2017/10/OCI\\_US-Fossil-Fuel-Subs-2015-16\\_Final\\_Oct2017.pdf](https://priceofoil.org/content/uploads/2017/10/OCI_US-Fossil-Fuel-Subs-2015-16_Final_Oct2017.pdf)
16. Energy Innovation: Policy and Technology, Alvarez G. Fossil-Fuel Funded Opposition Is Blocking America’s Clean Energy Transition. Permitting Reform Can Help. Forbes. Published November 30, 2022. Accessed August 27, 2023.  
<https://www.forbes.com/sites/energyinnovation/2022/11/30/fossil-fuel-funded-opposition-is-blocking-americas-clean-energy-transition-permitting-reform-can-help/>
17. Gregory A. Air pollution from fossil fuels ‘kills 5 million people a year.’ The Guardian.  
<https://www.theguardian.com/environment/2023/nov/29/air-pollution-from-fossil-fuels-kills-5-million-people-a-year>. Published November 29, 2023. Accessed February 15, 2024.
18. Makower J. Assessing businesses’ \$7.3 trillion annual cost to natural capital. GreenBiz. Published April 15, 2013. Accessed February 15, 2024.  
<https://www.greenbiz.com/article/assessing-businesses-73-trillion-annual-cost-natural-capital>
19. Fleming S. How much is nature worth? \$125 trillion, according to this report. World Economic Forum. Published October 30, 2018. Accessed February 15, 2024.  
<https://www.weforum.org/agenda/2018/10/this-is-why-putting-a-price-on-the-value-of-nature-could-help-the-environment/>
20. Skelton A, Larkin A, Ringsmuth A, et al. 10 myths about net zero targets and carbon offsetting, busted. Climate Home News. Published December 11, 2020. Accessed May 25, 2023.  
<https://www.climatechangenews.com/2020/12/11/10-myths-net-zero-targets-carbon-offsetting-busted/>
21. Mowery L. Net Zero vs Real Zero Emissions and What It Means for Your Business’ Goals. Green Business Bureau. Published August 4, 2022. Accessed May 23, 2023.  
<https://greenbusinessbureau.com/topics/carbon-accounting/net-zero-vs-real-zero-emissions-and-what-it-means-for-your-business-goals/>

22. Figueres C. Flipping the Environmental Narrative. Project Syndicate. Published March 13, 2023. Accessed May 23, 2023.  
<https://www.project-syndicate.org/magazine/climate-biodiversity-narrative-can-drive-stronger-policies-by-christiana-figueres-2023-03>
23. United Nations. United Nations Fact Sheet on Climate Change - Africa is particularly vulnerable to the expected impacts of global warming. Published online 2006.  
[https://unfccc.int/files/press/backgrounders/application/pdf/factsheet\\_africa.pdf](https://unfccc.int/files/press/backgrounders/application/pdf/factsheet_africa.pdf)
24. Lau JD, Kleiber D, Lawless S, Cohen PJ. Gender equality in climate policy and practice hindered by assumptions. *Nat Clim Change*. 2021;11(3):186-192. doi:10.1038/s41558-021-00999-7
25. Evans S. Analysis: Which countries are historically responsible for climate change? Carbon Brief. Published October 5, 2021. Accessed May 23, 2023.  
<https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/>
26. World Bank. Indigenous Peoples. Accessed August 4, 2023.  
<https://www.worldbank.org/en/topic/indigenouspeoples>
27. Ford JD, King N, Galappaththi EK, Pearce T, McDowell G, Harper SL. The Resilience of Indigenous Peoples to Environmental Change. *One Earth*. 2020;2(6):532-543.  
doi:10.1016/j.oneear.2020.05.014
28. United Nations For Indigenous Peoples. Climate Change. Accessed August 4, 2023.  
<https://www.un.org/development/desa/indigenouspeoples/climate-change.html>
29. United Nations. Biodiversity - our strongest natural defense against climate change. United Nations. Accessed May 23, 2023.  
<https://www.un.org/en/climatechange/science/climate-issues/biodiversity>
30. United Nations. A liveable future for all is possible, if we take urgent climate action: flagship UN report | UN News. UN News. Published 2023. Accessed May 23, 2023.  
<https://news.un.org/en/story/2023/03/1134777>
31. Mountford H. COP27: Four key storylines that will shape the climate agenda in 2023. ClimateWorks Foundation. Published 2022. Accessed May 23, 2023.  
<https://www.climateworks.org/blog/cop27-four-key-storylines-that-will-shape-the-climate-agenda-in-2023/>
32. Olano LV. Communicating the Climate Crisis. Climate-XChange. Accessed May 23, 2023.  
<https://climate-xchange.org/communicating-the-climate-crisis/>
33. Rockström J, Gupta J, Qin D, et al. Safe and just Earth system boundaries. *Nature*. 2023;619(7968):102-111. doi:10.1038/s41586-023-06083-8

34. IPCC. Global Warming of 1.5°C: IPCC Special Report on Impacts of Global Warming of 1.5°C above Pre-Industrial Levels in Context of Strengthening Response to Climate Change, Sustainable Development, and Efforts to Eradicate Poverty. 1st ed. Cambridge University Press; 2018. doi:10.1017/9781009157940
35. Hansen J, Johnson D, Lacis A, et al. Climate Impact of Increasing Atmospheric Carbon Dioxide. *Science*. 1981;213(4511):957-966. doi:10.1126/science.213.4511.957
36. United Nations. Hottest July ever signals ‘era of global boiling has arrived’ says UN chief. UN News. Published July 27, 2023. Accessed August 16, 2023. <https://news.un.org/en/story/2023/07/1139162>
37. Poynting M, Rivault E. 2023 confirmed as world’s hottest year on record. BBC News. <https://www.bbc.com/news/science-environment-67861954>. Published January 9, 2024. Accessed February 15, 2024.
38. McGrath M. UN chief: “Tax fossil fuel profits for climate damage.” BBC News. <https://www.bbc.com/news/science-environment-62970887>. Published September 20, 2022. Accessed August 16, 2023.
39. Butler-Sloss S, Bond K. The Energy Transition in Five Charts and Not Too Many Numbers. RMI. Published May 3, 2023. Accessed August 16, 2023. <https://rmi.org/the-energy-transition-in-five-charts-and-not-too-many-numbers/>
40. Iacobuța GI, Höhne N, van Soest HL, Leemans R. Transitioning to Low-Carbon Economies under the 2030 Agenda: Minimizing Trade-Offs and Enhancing Co-Benefits of Climate-Change Action for the SDGs. *Sustainability*. 2021;13(19):10774. doi:10.3390/su131910774
41. The Energy Mix. Oil and Gas Produces \$2.8B in Daily Profits Over 50 Years, Staggering New Analysis Shows. The Energy Mix. Published July 25, 2022. Accessed August 16, 2023. <https://www.theenergymix.com/2022/07/24/oil-and-gas-produces-2-8b-in-daily-profits-over-50-years-staggering-new-analysis-shows/>
42. Westervelt A. Is Big Oil Turning on Big Auto? The New Republic. Published July 19, 2023. Accessed August 16, 2023. <https://newrepublic.com/article/174392/big-oil-turning-big-auto>
43. Ettinger J. Extreme weather events are exactly the time to talk about climate change – here’s why. The Conversation. Published July 27, 2023. Accessed August 16, 2023. <http://theconversation.com/extreme-weather-events-are-exactly-the-time-to-talk-about-climate-change-heres-why-210412>
44. Borenstein S. No obituary for Earth: Scientists fight climate doom talk. AP News. Published April 4, 2022. Accessed August 2, 2023. <https://apnews.com/article/fighting-climate-doom-d47f2ea47bc428656b7be1f48771b75d>
45. Hassol SJ. The Right Words Are Crucial to Solving Climate Change. *Scientific American*. doi:10.1038/scientificamerican0223-64

46. Solnit R. Big oil coined 'carbon footprints' to blame us for their greed. Keep them on the hook. *The Guardian*.  
<https://www.theguardian.com/commentisfree/2021/aug/23/big-oil-coined-carbon-footprints-to-blame-us-for-their-greed-keep-them-on-the-hook>. Published August 23, 2021. Accessed July 17, 2023.
47. Brulle R, Downie C. Following the money: trade associations, political activity and climate change. *Clim Change*. 2022;175(3):11. doi:10.1007/s10584-022-03466-0
48. Dimitriadis D, Grostern J, Bright S. Revealed: Fossil Fuel Giants Are Using British Influencers to go Viral. *DeSmog*. Published July 27, 2023. Accessed August 1, 2023.  
<https://www.desmog.com/2023/07/27/fossil-fuel-oil-gas-giants-shell-bp-using-british-influencers-to-go-viral/>
49. Yoder K. Big Oil spent \$3.6 billion to clean up its image, and it's working. *Grist*. Published December 24, 2019. Accessed August 26, 2023.  
<https://grist.org/energy/big-oil-spent-3-6-billion-on-climate-ads-and-its-working/>
50. Youssef AB. Effectiveness and Constraints of NGOs on Climate Policies in Developing Countries: The case of Tunisia. *ERF Policy Brief*. 2021;(66).
51. Kaufman L. Unmasking Dark Money: How Fossil Fuel Interests Can Undermine Clean Energy Progress. Kleinman Center for Energy Policy. Published June 20, 2023. Accessed August 26, 2023.  
<https://kleinmanenergy.upenn.edu/news-insights/unmasking-dark-money-how-fossil-fuel-interests-can-undermine-clean-energy-progress/>
52. Supran G, Oreskes N. The forgotten oil ads that told us climate change was nothing. *The Guardian*.  
<https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing>. Published November 18, 2021. Accessed July 19, 2023.
53. Kaupa C. Smoke Gets in Your Eyes: Misleading Fossil Fuel Advertisement in the Climate Crisis. Published online February 16, 2021. doi:10.2139/ssrn.3786647
54. Wright C, Irwin R, Nyberg D, Bowden V. 'We're in the coal business': Maintaining fossil fuel hegemony in the face of climate change. *J Ind Relat*. 2022;64(4):544-563.  
doi:10.1177/00221856211070632
55. Bonneuil C, Choquet PL, Franta B. Early warnings and emerging accountability: Total's responses to global warming, 1971–2021. *Glob Environ Change*. 2021;71:102386.  
doi:10.1016/j.gloenvcha.2021.102386

56. Adomaitis N, Solsvik T. Oil and gas industry earned \$4 trillion last year, says IEA chief. Reuters. Published February 14, 2023. Accessed August 21, 2023. <https://www.reuters.com/business/energy/oil-gas-industry-earned-4-trillion-last-year-says-iea-chief-2023-02-14/>
57. Vaillant J. Opinion: As our forests burn, oil companies are doubling down on their old business models. The Globe and Mail. <https://www.theglobeandmail.com/opinion/article-as-our-forests-burn-oil-companies-are-doubling-down-on-their-old/>. Published August 29, 2023. Accessed September 4, 2023.
58. Noor D. Big oil quietly walks back on climate pledges as global heat records tumble. The Guardian. <https://www.theguardian.com/us-news/2023/jul/16/big-oil-climate-pledges-extreme-heat-fossil-fuel>. Published July 16, 2023. Accessed September 4, 2023.
59. Figueres C. I thought fossil fuel firms could change. I was wrong. Al Jazeera. Published July 6, 2023. Accessed August 16, 2023. <https://www.aljazeera.com/opinions/2023/7/6/i-thought-fossil-fuel-firms-could-change-i-was-wrong>
60. Lineberry C. How Rachel Carson’s “Silent Spring” Awakened the World to Environmental Peril. History. Published April 22, 2022. Accessed August 8, 2023. <https://www.history.com/news/rachel-carson-silent-spring-impact-environmental-movement>
61. Mann ME. The New Climate War: The Fight to Take Back Our Planet. First edition. PublicAffairs; 2021.
62. UCSUSA. How Fossil Fuel Lobbyists Used “Astroturf” Front Groups to Confuse the Public. Union of Concerned Scientists. Published October 11, 2017. Accessed August 29, 2023. <https://www.ucsusa.org/resources/how-fossil-fuel-lobbyists-used-astroturf-front-groups-confuse-public>
63. Bottaro G. US fossil fuel sector ‘instrumental’ in sparking anti-ESG movement. SG Voice. Published May 22, 2023. Accessed August 27, 2023. <https://www.sgvoice.net/strategy/research/34039/us-fossil-fuel-industry-instrumental-in-sparking-anti-esg-movement/>
64. Ward B, Bowen A. An analysis of the Trump Administration’s economic and policy arguments for withdrawal of the United States from the Paris Agreement on climate change. Grantham Res Inst. Published online 2020.
65. Morgan D. U.S. Congress votes to block ESG investing, Biden veto expected. Reuters. <https://www.reuters.com/business/us-senate-poised-consider-blocking-biden-esg-investment-rule-2023-03-01/>. Published March 2, 2023. Accessed August 27, 2023.

66. Adams-Heard R. Texas Targets Wall Street in Fight Over ESG Investing. Bloomberg - Green Finance. <https://www.bloomberg.com/news/articles/2021-06-15/texas-targets-wall-street-in-fight-over-sustainable-investing>. Published June 15, 2021. Accessed August 27, 2023.
67. Gelles D. The Texas Group Waging a National Crusade Against Climate Action. The New York Times. <https://www.nytimes.com/2022/12/04/climate/texas-public-policy-foundation-climate-change.html>. Published December 4, 2022. Accessed August 27, 2023.
68. Cooke P. Fossil Fuel Groups 'Spent Millions' on Social Media Ads Spreading Climate Disinformation During COP27. DeSmog. Published January 19, 2023. Accessed August 1, 2023. <https://www.desmog.com/2023/01/19/fossil-fuel-groups-spent-millions-on-social-media-ads-spreading-climate-disinformation-during-cop27/>
69. Ormesher E. Fossil fuel sector spent millions on ads to influence public during Cop27. The Drum. Published 2023. Accessed May 23, 2023. <https://www.thedrum.com/news/2023/01/19/fossil-fuel-sector-spent-millions-ads-influence-public-during-cop27>
70. Worth K. In Shift, Key Climate Denialist Group Heartland Institute Pivots to Policy. FRONTLINE. Published November 2, 2018. Accessed August 27, 2023. <https://www.pbs.org/wgbh/frontline/article/in-shift-key-climate-denialist-group-heartland-institute-pivots-to-policy/>
71. Center for Media and Democracy. American Legislative Exchange Council. SourceWatch. Published April 20, 2023. Accessed August 27, 2023. <https://www.documentcloud.org/documents/5738760-Full-List-of-Alec-Funders-1981>
72. Mandel K. Exxon quits ALEC. Think Progress. Published July 12, 2018. Accessed August 27, 2023. <https://archive.thinkprogress.org/exxon-quits-alec-lobbying-group-020c0ce2dad1/>
73. Hassol SJ, Mann ME. Welcome to the apocalyptic haze of the new abnormal. There is nowhere left to hide. The Independent. Published June 9, 2023. Accessed July 19, 2023. <https://www.independent.co.uk/us/voices/air-quality-index-nyc-fires-smoke-b2354703.html>
74. Knaus C. Disinformation and lies are spreading faster than Australia's bushfires. The Guardian. <https://www.theguardian.com/australia-news/2020/jan/12/disinformation-and-lies-are-spreading-faster-than-australias-bushfires>. Published January 11, 2020. Accessed August 31, 2023.
75. Dembicki G. Google let Daily Wire advertise on 'climate change is a hoax' searches. The Guardian. <https://www.theguardian.com/environment/2023/jan/27/daily-wire-google-ads-climate-crisis-deniers>. Published January 27, 2023. Accessed May 23, 2023.

76. Westervelt A. Fossil fuel companies donated \$700m to US universities over 10 years. *The Guardian*.  
<https://www.theguardian.com/environment/2023/mar/01/fossil-fuel-companies-donate-millions-us-universities>. Published March 1, 2023. Accessed May 31, 2023.
77. Supran G, Rahmstorf S, Oreskes N. Assessing ExxonMobil's global warming projections. *Science*. 2023;379(6628):eabk0063. doi:10.1126/science.abk0063
78. Lamb WF, Mattioli G, Levi S, et al. Discourses of climate delay. *Glob Sustain*. 2020;3:e17. doi:10.1017/sus.2020.13
79. Marshall J. John Marshall: 3 strategies for effectively talking about climate change. TED Talk. Published March 2021. Accessed September 16, 2023.  
[https://www.ted.com/talks/john\\_marshall\\_3\\_strategies\\_for\\_effectively\\_talking\\_about\\_climate\\_change](https://www.ted.com/talks/john_marshall_3_strategies_for_effectively_talking_about_climate_change)
80. Willis J, Bofiliou T, Manili A, Reynolds I, Kozlowski N. The Greenwashing Hydra. *Planet Tracker*; 2023.  
<https://planet-tracker.org/wp-content/uploads/2023/01/Greenwashing-Hydra-3.pdf>
81. Labbé S. 40% of companies make misleading environmental claims, finds global report. *Business in Vancouver*. Published January 27, 2022. Accessed September 16, 2023.  
<https://biv.com/article/2022/01/40-companies-make-misleading-environmental-claims-finds-global-report>
82. Neslen A. EU to crack down on greenwashing with 'proportionate' penalties. *The Guardian*.  
<https://www.theguardian.com/environment/2023/feb/28/eu-to-crack-down-on-greenwashing-with-proportionate-penalties>. Published February 28, 2023. Accessed September 16, 2023.
83. EasyEcoTips. Greenwashing through fake labels. *EasyEcoTips*. Published March 27, 2020. Accessed May 24, 2023. <https://easyecotips.com/greenwashing-through-fake-labels/>
84. Carbon Trust. Briefing: how to counter greenwashing with transparent communications. <https://www.carbontrust.com/en-eu/our-work-and-impact/guides-reports-and-tools/briefing-how-to-counter-greenwashing-with-transparent-communications>. Published March 14, 2023. Accessed May 24, 2023.  
<https://www.carbontrust.com/en-eu/our-work-and-impact/guides-reports-and-tools/briefing-how-to-counter-greenwashing-with-transparent-communications>
85. Hartmann P, Marcos A, Castro J, Apaolaza V. Perspectives: Advertising and climate change – Part of the problem or part of the solution? *Int J Advert*. 2023;42(2):430-457. doi:10.1080/02650487.2022.2140963
86. Riley T. Just 100 companies responsible for 71% of global emissions, study says. *The Guardian*. Published 2017. Accessed May 23, 2023.  
<https://www.theguardian.com/sustainable-business/2017/jul/10/100-fossil-fuel-companies-investors-responsible-71-global-emissions-cdp-study-climate-change>

87. Marsh R. Big Oil has engaged in a long-running climate disinformation campaign while raking in record profits, lawmakers find | CNN Politics. CNN. Published December 9, 2022. Accessed May 23, 2023.  
<https://www.cnn.com/2022/12/09/politics/big-oil-disinformation-record-profits-climate/index.html>
88. Committee on Oversight and Accountability Democrats. Oversight Committee Releases New Documents Showing Big Oil's Greenwashing Campaign and Failure to Reduce Emissions. House Committee on Oversight and Reform. Published December 9, 2022. Accessed September 16, 2023.  
<https://oversightdemocrats.house.gov/news/press-releases/oversight-committee-releases-new-documents-showing-big-oil-s-greenwashing>
89. Sanyal D. Obtaining a social licence to operate – a challenge for the industry. BP. Published online November 2012.
90. Gunningham N, Kagan RA, Thornton D. Social License and Environmental Protection: Why Businesses Go beyond Compliance. *Law Soc Inq.* 2004;29(2):307-341.
91. Sherrington R. Analysis: Two-thirds of online posts from six major fossil fuel companies are 'greenwashing.' *Climate and Capital Media.* Published October 18, 2021. Accessed May 23, 2023.  
<https://www.climateandcapitalmedia.com/analysis-two-thirds-of-online-posts-from-six-major-fossil-fuel-companies-are-greenwashing/>
92. Kähkönen N, Bourgeault E, Hagbrink I. Net Zero and Beyond: A Deep-Dive on Climate Leaders and What's Driving Them - South Pole's 2022 Net Zero Report. *South Pole*; 2022:1-37.  
<https://www.southpole.com/publications/net-zero-and-beyond>
93. Rittenhouse L. "Green hushing" explained – why brands are cutting back on sustainability marketing. *Ad Age.* Published December 19, 2022. Accessed May 23, 2023.  
<https://adage.com/article/marketing-news-strategy/green-hushing-explained-why-brands-are-cutting-back-sustainability-marketing/2459191>
94. Makower J. Greenhushing: Should companies speak up or shut up? *Greenbiz.* Published October 2022. Accessed July 19, 2023.  
<https://www.greenbiz.com/article/greenhushing-should-companies-speak-or-shut>
95. Symons A. What is greenhushing? The greenwashing tactics to look out for in 2023. *euronews.* Published January 29, 2023. Accessed May 23, 2023.  
<https://www.euronews.com/green/2023/01/29/what-is-greenhushing-how-to-spot-the-sophisticated-greenwashing-tactics-being-used-in-2023>
96. Shankleman J. Hyundai Overstated Just How Clean One of Its Fuel Cell Cars Is - *Bloomberg.* Published June 9, 2021. Accessed September 16, 2023.  
<https://www.bloomberg.com/news/articles/2021-06-08/hyundai-overstated-just-how-clean-one-of-its-fuel-cell-cars-is>



97. Gerretsen I. The adverts banned for misleading climate claims. BBC. Published March 7, 2022. Accessed September 4, 2023.  
<https://www.bbc.com/future/article/20220302-the-adverts-that-were-banned-for-misleading-climate-claims>
98. Jones JPG, Hockley N. “Worthless” forest carbon offsets risk exacerbating climate change. The Conversation. Published August 24, 2023. Accessed September 4, 2023.  
<http://theconversation.com/worthless-forest-carbon-offsets-risk-exacerbating-climate-change-211862>
99. Committee of Advertising Practice. The environment: misleading claims and social responsibility in advertising - Advertising Guidance (non-broadcast and broadcast). Published online June 2023.  
<https://www.asa.org.uk/static/d819e399-3cf9-44ea-942b82d5ecd6dff3/CAP-guidance-on-misleading-environmental-claims-and-social-responsibility.pdf>
100. Setzer J, Higham C. Global trends in climate change litigation: 2022 snapshot - Policy Report. Grantham Research Institute on climate change and the environment. Published June 2022. Accessed August 2, 2023.  
<https://www.lse.ac.uk/granthaminstitute/publication/global-trends-in-climate-change-litigation-2022/>
101. The Behavioural Insights Team. How to Build a Net Zero Society: Using Behavioural Insights to Decarbonise Home Energy, Transport, Food, and Material Consumption.; 2023.  
<https://www.bi.team/publications/how-to-build-a-net-zero-society/>
102. Talbot H. Amsterdam to become first city in the world to ban this type of advert. euronews. Published May 20, 2021. Accessed May 23, 2023.  
<https://www.euronews.com/green/2021/05/20/amsterdam-becomes-first-city-in-the-world-to-ban-this-type-of-advert>
103. Frost R. France becomes the first European country to ban fossil fuel adverts. euronews. Published August 24, 2022. Accessed May 23, 2023.  
<https://www.euronews.com/green/2022/08/24/france-becomes-first-european-country-to-ban-fossil-fuel-ads-but-does-the-new-law-go-far-e>
104. Deloitte. 2022 Climate Check: Business’ Views on Climate Action Ahead of COP27. Deloitte Touche Tohmatsu Limited; 2022.  
<https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Risk/gx-risk-deloitte-climate-pulse-report-2022.pdf>
105. Makower J. Why we can’t stop talking about greenwashing. Greenbiz. Published January 17, 2023. Accessed August 2, 2023.  
<https://www.greenbiz.com/article/why-we-cant-stop-talking-about-greenwashing>

106. Deloitte Perspectives. The greenwashing risk to corporate sustainability. Deloitte. Published 2023. Accessed May 23, 2023.  
<https://www.deloitte.com/global/en/services/legal/blogs/greenwashing-risk-to-corporate-sustainability.html>
107. Mahdawi A. Beware advertisers, the EU has a new plan to limit hot air around environmental claims. World Federation of Advertisers. Published April 12, 2023. Accessed May 24, 2023.  
<https://wfanet.org/knowledge/item/2023/04/12/Beware-advertisers-the-EU-has-a-new-plan-to-limit-hot-air-around-environmental-claims>
108. Accenture Song. A Primer on Sustainable Communications. Published online 2022.
109. Wapner P, Elver H. Reimagining Climate Change.; 2017. Accessed May 23, 2023.  
<https://www.routledge.com/Reimagining-Climate-Change/Wapner-Elver/p/book/9781138304215>
110. Perga ME, Sarrasin O, Steinberger J, Lane SN, Butera F. The climate change research that makes the front page: Is it fit to engage societal action? *Glob Environ Change*. 2023;80:102675. doi:10.1016/j.gloenvcha.2023.102675
111. Firstlight Group. Re-Thinking Climate Communications: Lessons from Deniers and Delayer. Firstlight; 2023.  
<https://www.firstlightgroup.io/app/uploads/2023/01/Rethinking-Climate-Comms-final.pdf>
112. Tandon A. Analysis: The lack of diversity in climate-science research - Carbon Brief. Carbon Brief. Published 2021. Accessed May 23, 2023.  
<https://www.carbonbrief.org/analysis-the-lack-of-diversity-in-climate-science-research/>
113. MyEnergi. Environmental Google Searches Quadrupled In COVID Lockdown. myenergi UK. Published August 7, 2020. Accessed May 23, 2023.  
<https://www.myenergi.com/news/environmentally-friendly-google-searches-quadruple-during-covid-lockdown/>
114. Yoder K. It's not just you: Everyone is Googling 'climate anxiety.' *Grist*. Published October 4, 2021. Accessed May 23, 2023.  
<https://grist.org/language/climate-anxiety-google-search-trends/>
115. Figueres C, Rivett-Carnac T, Dickinson P, Marshall J, Mei H. How to talk about climate change so people will listen. *Outrage and Optimism*. Published June 22, 2023. Accessed August 24, 2023.  
<https://www.outrageandoptimism.org/episodes/how-to-talk-about-climate-change-so-people-will-listen>

116. Fisher A. Only 5% of national TV news segments on the record-shattering heat wave that scorched Texas mentioned climate change. Media Matters for America. Published July 3, 2023. Accessed August 24, 2023.  
<https://www.mediamatters.org/media-matters-studies-climate-change-coverage/only-5-national-tv-news-segments-record-shattering>
117. Carrington D. 'Cake' mentioned 10 times more than 'climate change' on UK TV – report | Climate crisis | The Guardian. The Guardian. Accessed May 31, 2023.  
<https://www.theguardian.com/environment/2021/sep/15/cake-mentioned-10-times-more-than-climate-change-on-uk-tv-report>
118. Freedland J. As heat records break, the climate movement has the right answers – but the words are all wrong. The Guardian.  
<https://www.theguardian.com/commentisfree/2023/jul/14/big-oil-climate-crisis-fossil-fuel-public>. Published July 14, 2023. Accessed July 19, 2023.
119. Centola D, Becker J, Brackbill D, Baronchelli A. Experimental evidence for tipping points in social convention. *Science*. 2018;360(6393):1116-1119. doi:10.1126/science.aas8827
120. Leiserowitz A, Maibach E, Rosenthal S, et al. Global Warming's Six Americas, December 2022. Yale Program on Climate Change Communication. Published 2023. Accessed May 23, 2023.  
<https://live-yccc.pantheon.io/publications/global-warmings-six-americas-december-2022/>
121. SustainAbility, WWF-UK. Through the Looking Glass Corporate Responsibility in the Media and Entertainment Sector.; 2004. Accessed July 21, 2023.  
<https://www.grainesdechangement.com/docs/medias/Through%20the%20Looking%20Glass.pdf>
122. Schäfer MS, Schlichting I. Media Representations of Climate Change: A Meta-Analysis of the Research Field. *Environ Commun*. 2014;8(2):142-160. doi:10.1080/17524032.2014.914050
123. Pickard V. Perspective | The Fairness Doctrine won't solve our problems – but it can foster needed debate. Washington Post.  
<https://www.washingtonpost.com/outlook/2021/02/04/fairness-doctrine-wont-solve-our-problems-it-can-foster-needed-debate/>. Published February 4, 2021. Accessed August 8, 2023.
124. Knight Foundation. Public broadcasting: Its past and its future. Published 2017. Accessed May 31, 2023. <https://knightfoundation.org/public-media-white-paper-2017-gardner/>
125. Gander B. Taking America: When Billionaires Own The Media. Medium. Published 2022. Accessed May 23, 2023.  
<https://barry-gander.medium.com/taking-america-when-billionaires-own-the-media-5d7a3cccaf55>

126. Benton J. Do countries with better-funded public media also have healthier democracies? Of course they do. Nieman Lab. Published 2022. Accessed May 23, 2023. <https://www.niemanlab.org/2022/01/do-countries-with-better-funded-public-media-also-have-healthier-democracies-of-course-they-do/>
127. Pickard V. American Media Exceptionalism and the Public Option. In: Democracy without Journalism?. Oxford University Press; 2020:136-163. Accessed May 25, 2023. <https://academic.oup.com/book/35132/chapter/299308369>
128. Newman N. Overview and key findings of the 2022 Digital News Report. Reuters Institute. Published 2022. Accessed May 24, 2023. <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2022/dnr-executive-summary>
129. Ripley A. I stopped reading the news. Is the problem me – or the product? Washington Post. Published July 8, 2022. Accessed May 23, 2023. <https://www.washingtonpost.com/opinions/2022/07/08/how-to-fix-news-media/>
130. Robertson CE, Pröllochs N, Schwarzenegger K, Pärnamets P, Van Bavel JJ, Feuerriegel S. Negativity drives online news consumption. *Nat Hum Behav.* 2023;7(5):812-822. doi:10.1038/s41562-023-01538-4
131. Young S. Different Generations, Different Sources Of News. *Leaders.* Published April 12, 2023. Accessed August 29, 2023. <https://leaders.com/news/business/different-generations-different-sources-of-news/>
132. Shearer E. More than eight-in-ten Americans get news from digital devices. Pew Research Center. Published 2021. Accessed May 23, 2023. <https://www.pewresearch.org/short-reads/2021/01/12/more-than-eight-in-ten-americans-get-news-from-digital-devices/>
133. Langin K. Fake news spreads faster than true news on Twitter – thanks to people, not bots. *Science.* Published 2018. Accessed May 31, 2023. <https://www.science.org/content/article/fake-news-spreads-faster-true-news-twitter-thanks-people-not-bots>
134. Hodson J. An ecological model of climate marketing: A conceptual framework for understanding climate science related attitude and behavior change. Feng GC, ed. *Cogent Soc Sci.* 2019;5(1):1625101. doi:10.1080/23311886.2019.1625101
135. Duhaime AC. *Minding the Climate: How Neuroscience Can Help Us Solve Our Environmental Crisis.* Harvard University Press; 2022.
136. Hewlett Foundation. *Climate Communications Opportunity Strategy: 2019-2022.* Published online January 2020. <https://www.hewlett.org/wp-content/uploads/2020/08/Climate-Communications-Opportunity-Strategy-and-field-assessment-FINAL.pdf>

137. Ozden J. Protest Movements Could Be More Effective Than the Best Charities. Stanford Social Innovation Review. Published 2022. Accessed May 23, 2023. [https://ssir.org/articles/entry/protest\\_movements\\_could\\_be\\_more\\_effective\\_than\\_the\\_best\\_charities](https://ssir.org/articles/entry/protest_movements_could_be_more_effective_than_the_best_charities)
138. Cracknell J, Williams H, Méténier N, Desanlis H. The case for funding youth-led climate initiatives. ClimateWorks Foundation. Published February 17, 2023. Accessed August 5, 2023. <https://www.climateworks.org/blog/the-case-for-funding-youth-led-climate-initiatives/>
139. Simon M. Why Is The Climate Movement Failing? The Donors Of Color Network Has Some Fresh Ideas For Funders. Forbes. Published June 10, 2021. Accessed August 5, 2023. <https://www.forbes.com/sites/morgansimon/2021/06/10/why-is-the-climate-movement-failing-the-donors-of-color-network-has-some-fresh-ideas-for-funders/>
140. HERO. HERO launches first subscription platform to provide a stable monthly income to 10,000 climate campaigners. HERO. Published August 2, 2023. Accessed August 4, 2023. <https://landing.herocircle.app/hero-stories/survey>
141. Stoknes PE. What We Think about When We Try Not to Think about Global Warming: Toward a New Psychology of Climate Action. Chelsea Green Publishing; 2015.
142. Kasperson RE, Webler T, Ram B, Sutton J. The social amplification of risk framework: New perspectives. Risk Anal. 2022;42(7):1367-1380. doi:10.1111/risa.13926
143. Leiserowitz A, Maibach E, Rosenthal S, et al. Climate Change in the American Mind: Beliefs and Attitudes, Spring 2023. Yale Program on Climate Change Communication. Published June 8, 2023. Accessed August 24, 2023. <https://climatecommunication.yale.edu/publications/climate-change-in-the-american-mind-beliefs-attitudes-spring-2023/>
144. Verner M, Marlon J, Carman J, et al. Global Warming's Six Audiences: A cross-national comparison in nearly 200 countries and territories worldwide. Yale Program on Climate Change Communication. Published August 2023. Accessed August 21, 2023. <https://climatecommunication.yale.edu/publications/global-warmings-six-audiences-a-cross-national-comparison/>
145. Duhaime AC. You believe in climate change but drive a gas-guzzler, don't recycle. Why? Harvard Gazette. Published December 6, 2022. Accessed May 23, 2023. <https://news.harvard.edu/gazette/story/2022/12/excerpt-from-minding-the-climate-by-ann-christine-duhaime/>
146. Lloyd R. Climate Change Actions Are Far More Popular Than People in U.S. Realize. Scientific American. Published August 2022. Accessed July 19, 2023. <https://www.scientificamerican.com/article/climate-change-actions-are-far-more-popular-than-people-in-u-s-realize/>

147. Christiano A, Neimand A. The Science of What Makes People Care. Stanford Social Innovation Review. Published 2018. Accessed August 25, 2023. [https://ssir.org/articles/entry/the\\_science\\_of\\_what\\_makes\\_people\\_care](https://ssir.org/articles/entry/the_science_of_what_makes_people_care)
148. Global Witness. How Facebook's algorithm amplifies climate disinformation. Global Witness. Published 2022. Accessed May 23, 2023. <https://www.globalwitness.org/en/campaigns/digital-threats/climate-divide-how-facebooks-algorithm-amplifies-climate-disinformation/>
149. Lindvall D. Democracy and the Challenge of Climate Change. International Institute for Democracy and Electoral Assistance; 2021. doi:10.31752/idea.2021.88
150. Purpose Disruptors. Good Life 2030. Purpose Disruptors. Published 2022. Accessed May 24, 2023. <https://www.purposedisruptors.org/good-life-2030>
151. Nuttall P. Calls for clearer communication to cultivate greener consumers. Financial Times. <https://www.ft.com/content/3d1a4498-e386-4da8-a7ac-21c4dee53110>. Published February 27, 2023. Accessed May 23, 2023.
152. United Nations Environment Programme, GRID-Arendal, Behavioural Insights Team. The Little Book of Green Nudges: 40 Nudges to Spark Sustainable Behaviour on Campus.; 2020. <https://www.bi.team/wp-content/uploads/2020/09/LBGN-2.pdf>
153. Thaler RH, Sunstein CR. Nudge: Improving Decisions about Money, Health, and the Environment. Final edition. Penguin Books, an imprint of Penguin Random House LLC; 2021.
154. Accenture Song. Our Human Moment. Published online March 2023. <https://www.accenture.com/content/dam/accenture/final/accenture-com/document/Accenture-Our-Human-Moment-31-Mar-2023.pdf>
155. Peisker J. Context matters: The drivers of environmental concern in European regions. Glob Environ Change. 2023;79:102636. doi:10.1016/j.gloenvcha.2023.102636
156. Hayhoe K. Saving Us: A Climate Scientist's Case for Hope and Healing in a Divided World. Atria/One Signal Publishers; 2022.
157. Li N, Su LYF. Message Framing and Climate Change Communication: A Meta-Analytical Review. J Appl Commun. 2018;102(3). doi:10.4148/1051-0834.2189
158. Tyson A, Kennedy B, Funk C. Gen Z, Millennials Stand Out for Climate Change Activism, Social Media Engagement With Issue. Pew Research Center Science & Society. Published May 26, 2021. Accessed August 1, 2023. <https://www.pewresearch.org/science/2021/05/26/local-impact-of-climate-change-environmental-problems/>

159. Wanna C. IMF Says Public Support Needed to Change Climate Policies. Bloomberg. <https://www.bloomberg.com/news/articles/2023-02-10/imf-says-public-support-needed-to-change-climate-policies>. Published February 10, 2023. Accessed August 1, 2023.
160. Brosch T. Affect and emotions as drivers of climate change perception and action: a review. *Curr Opin Behav Sci*. 2021;42:15-21. doi:10.1016/j.cobeha.2021.02.001
161. van Valkengoed AM, Steg L. Meta-analyses of factors motivating climate change adaptation behaviour. *Nat Clim Change*. 2019;9(2):158-163. doi:10.1038/s41558-018-0371-y
162. Wang S, Leviston Z, Hurlstone M, Lawrence C, Walker I. Emotions predict policy support: Why it matters how people feel about climate change. *Glob Environ Change*. 2018;50:25-40. doi:10.1016/j.gloenvcha.2018.03.002
163. Hine DW, Phillips WJ, Cooksey R, et al. Preaching to different choirs: How to motivate dismissive, uncommitted, and alarmed audiences to adapt to climate change? *Glob Environ Change*. 2016;36:1-11. doi:10.1016/j.gloenvcha.2015.11.002
164. Nabi RL, Gustafson A, Jensen R. Framing Climate Change: Exploring the Role of Emotion in Generating Advocacy Behavior. *Sci Commun*. 2018;40(4):442-468. doi:10.1177/1075547018776019
165. Bloodhart B, Swim JK, Diccico E. "Be Worried, be VERY Worried:" Preferences for and Impacts of Negative Emotional Climate Change Communication. *Front Commun*. 2019;3. Accessed August 1, 2023. <https://www.frontiersin.org/articles/10.3389/fcomm.2018.00063>
166. van Zomeren M. Four Core Social-Psychological Motivations to Undertake Collective Action. *Soc Personal Psychol Compass*. 2013;7(6):378-388. doi:10.1111/spc3.12031
167. Simon RW, Nath LE. Gender and Emotion in the United States: Do Men and Women Differ in Self-Reports of Feelings and Expressive Behavior? *Am J Sociol*. 2004;109(5):1137-1176. doi:10.1086/382111
168. Hurst KF, Sintov ND, Donnelly GE. Increasing sustainable behavior through conversation. *J Environ Psychol*. 2023;86:101948. doi:10.1016/j.jenvp.2022.101948
169. Raphael C. Engaged Communication Scholarship for Environmental Justice: A Research Agenda. *Environ Commun*. 2019;13(8):1087-1107. doi:10.1080/17524032.2019.1591478
170. Heiskanen E, Johnson M, Robinson S, Vadovics E, Saastamoinen M. Low-carbon communities as a context for individual behavioural change. *Energy Policy*. 2010;38(12):7586-7595. doi:10.1016/j.enpol.2009.07.002

171. Taylor D. High street shops in England and Wales repurposed as climate emergency centres. *The Guardian*.  
<https://www.theguardian.com/business/2021/may/03/high-street-shops-in-england-and-wales-repurposed-as-climate-emergency-centres>. Published May 3, 2021. Accessed May 23, 2023.
172. Climate Central. Climate Change and Mental Health. *Climate Central - Climate Matters*. Published May 25, 2022.  
<https://www.climatecentral.org/climate-matters/climate-change-and-mental-health>
173. Clayton S, Manning C, Speiser M, Hill AN. Mental Health and Our Changing Climate: Impacts, Inequities, Responses. *American Psychological Association*; 2021.  
<https://www.apa.org/news/press/releases/mental-health-climate-change.pdf>
174. McGinn M. 2019's biggest pop-culture trend was climate anxiety. *Grist*. Published December 27, 2019. Accessed July 28, 2023.  
<https://grist.org/politics/2019s-biggest-pop-culture-trend-was-climate-anxiety/>
175. Hickman C, Marks E, Pihkala P, et al. Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Lancet Planet Health*. 2021;5(12):e863-e873. doi:10.1016/S2542-5196(21)00278-3
176. Diffey J, Wright S, Uchendu JO, et al. "Not about us without us" - the feelings and hopes of climate-concerned young people around the world. *Int Rev Psychiatry Abingdon Engl*. 2022;34(5):499-509. doi:10.1080/09540261.2022.2126297
177. Whitmarsh L, Player L, Jiongco A, et al. Climate anxiety: What predicts it and how is it related to climate action? *J Environ Psychol*. 2022;83:101866. doi:10.1016/j.jenvp.2022.101866
178. Ogunbode CA, Doran R, Hanss D, et al. Climate anxiety, wellbeing and pro-environmental action: correlates of negative emotional responses to climate change in 32 countries. *J Environ Psychol*. 2022;84:101887. doi:10.1016/j.jenvp.2022.101887
179. Schwartz SEO, Benoit L, Clayton S, Parnes MF, Swenson L, Lowe SR. Climate change anxiety and mental health: Environmental activism as buffer. *Curr Psychol N B NJ*. Published online February 28, 2022:1-14. doi:10.1007/s12144-022-02735-6
180. Thiagarajan T, Newson J. *The Mental State of the World in 2022*. Sapien Labs; 2023.  
<https://mentalstateoftheworld.report/wp-content/uploads/2023/02/Mental-State-of-the-World-2022.pdf?ref=ageoftransformation.org>
181. Ahmed NM. *The Planetary Emergency is a Crisis of Spirituality*. Age of Transformation. Published March 31, 2023. Accessed July 29, 2023.  
<https://ageoftransformation.org/the-planetary-emergency-is-a-crisis-of-spirituality>



182. Lakoff G. Why it Matters How We Frame the Environment. *Environ Commun.* 2010;4(1):70-81. doi:10.1080/17524030903529749
183. Gunster S, Hackett RA. From the Front Lines to the Front Page: Environmental Advocacy, Alternative Media and Climate Politics. The International Environmental Communication Association; 2015.
184. McLoughlin N, Corner A, Clarke J, Whitmarsh L, Capstick S, Nash N. Mainstreaming Low-Carbon Lifestyles. Oxford: Climate Outreach; 2019.  
<https://climateoutreach.org/reports/mainstreaming-low-carbon-lifestyles/>
185. Shaw C, Corner A. Using Narrative Workshops to socialise the climate debate: Lessons from two case studies – centre-right audiences and the Scottish public. *Energy Res Soc Sci.* 2017;31:273-283. doi:10.1016/j.erss.2017.06.029
186. Scottish Government. Net Zero Nation: Draft Public Engagement Strategy for Climate Change.; 2020.  
<https://www.gov.scot/publications/net-zero-nation-draft-public-engagement-strategy-climate-change/>
187. Axon S. “The Good Life”: Engaging the public with community-based carbon reduction strategies. *Environ Sci Policy.* 2016;66:82-92. doi:10.1016/j.envsci.2016.08.007
188. Roeser S. Risk Communication, Public Engagement, and Climate Change: A Role for Emotions: Risk Communication, Public Engagement, and Climate Change. *Risk Anal.* 2012;32(6):1033-1040. doi:10.1111/j.1539-6924.2012.01812.x
189. Feinberg M, Willer R. Apocalypse Soon?: Dire Messages Reduce Belief in Global Warming by Contradicting Just-World Beliefs. *Psychol Sci.* 2011;22(1):34-38.  
doi:10.1177/0956797610391911
190. O’Neill S, Nicholson-Cole S. “Fear Won’t Do It”: Promoting Positive Engagement With Climate Change Through Visual and Iconic Representations. *Sci Commun.* 2009;30(3):355-379.  
doi:10.1177/1075547008329201
191. Besci F. Lessons in change from social movements. Published May 27, 2022. Accessed May 23, 2023. <https://www.frontlinebesci.com/p/daring-to-be-transformational>
192. Axon S. The socio-cultural dimensions of community-based sustainability: Implications for transformational change. *J Clean Prod.* 2020;266:121933. doi:10.1016/j.jclepro.2020.121933
193. Gustafson A, Ballew MT, Goldberg MH, Cutler MJ, Rosenthal SA, Leiserowitz A. Personal Stories Can Shift Climate Change Beliefs and Risk Perceptions: The Mediating Role of Emotion. *Commun Rep.* 2020;33(3):121-135. doi:10.1080/08934215.2020.1799049

194. Harth NS, Leach CW, Kessler T. Guilt, anger, and pride about in-group environmental behaviour: Different emotions predict distinct intentions. *J Environ Psychol.* 2013;34:18-26. doi:10.1016/j.jenvp.2012.12.005
195. Schwartz D, Loewenstein G. The Chill of the Moment: Emotions and Proenvironmental Behavior. *J Public Policy Mark.* 2017;36(2):255-268. doi:10.1509/jppm.16.132
196. Andreoni J. Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving. *Econ J.* 1990;100(401):464. doi:10.2307/2234133
197. Taufik D, Bolderdijk JW, Steg L. Going green? The relative importance of feelings over calculation in driving environmental intent in the Netherlands and the United States. *Energy Res Soc Sci.* 2016;22:52-62. doi:10.1016/j.erss.2016.08.012
198. Hartmann P, Eisend M, Apaolaza V, D'Souza C. Warm glow vs. altruistic values: How important is intrinsic emotional reward in proenvironmental behavior? *J Environ Psychol.* 2017;52:43-55. doi:10.1016/j.jenvp.2017.05.006
199. Schneider CR, Zaval L, Weber EU, Markowitz EM. The influence of anticipated pride and guilt on pro-environmental decision making. *PLOS ONE.* 2017;12(11):e0188781. doi:10.1371/journal.pone.0188781
200. Chatelain G, Hille SL, Sander D, Patel M, Hahnel UJJ, Brosch T. Feel good, stay green: Positive affect promotes pro-environmental behaviors and mitigates compensatory “mental bookkeeping” effects. *J Environ Psychol.* 2018;56:3-11. doi:10.1016/j.jenvp.2018.02.002
201. Rudd M, Aaker JL, Norton MI. Getting the Most Out of Giving: Pursuing Concretely-Framed Prosocial Goals Maximizes Happiness. *SSRN Electron J.* Published online 2013. doi:10.2139/ssrn.2259318
202. Slovic P. If I look at the mass I will never act. *Judgm Decis Mak.* 2007;2.
203. Rosa CD, Profice CC, Collado S. Nature Experiences and Adults' Self-Reported Pro-environmental Behaviors: The Role of Connectedness to Nature and Childhood Nature Experiences. *Front Psychol.* 2018;9. Accessed September 5, 2023. <https://www.frontiersin.org/articles/10.3389/fpsyg.2018.01055>
204. Lenferna A, Otto IM, Donges J. How social “tipping points” could limit global warming. *The Conversation.* Published January 30, 2020. Accessed May 23, 2023. <http://theconversation.com/how-social-tipping-points-could-limit-global-warming-130309>
205. Cox JR. Beyond Frames: Recovering the Strategic in Climate Communication. *Environ Commun.* 2010;4(1):122-133. doi:10.1080/17524030903516555

206. Clarke J, Corner A, Webster R. Public engagement for a 1.5 °C world: Shifting gear and scaling up. *Oxf Clim Outreach*. Published online 2018.  
<https://climateoutreach.org/reports/ipcc-public-engagement-1-5c/>
207. Han H, Ahn SW. Youth Mobilization to Stop Global Climate Change: Narratives and Impact. *Sustainability*. 2020;12(10):4127. doi:10.3390/su12104127
208. Jones MD. Cultural Characters and Climate Change: How Heroes Shape Our Perception of Climate Science. *Soc Sci Q*. 2013;95(1):1-39. doi:10.1111/ssqu.12043
209. Benjamin D, Por HH, Budescu D. Climate Change Versus Global Warming: Who Is Susceptible to the Framing of Climate Change? *Environ Behav*. 2017;49(7):745-770. doi:10.1177/0013916516664382
210. Jang SM, Hart PS. Polarized frames on “climate change” and “global warming” across countries and states: Evidence from Twitter big data. *Glob Environ Change*. 2015;32:11-17. doi:10.1016/j.gloenvcha.2015.02.010
211. Hendricks R. Communicating climate change: Focus on the framing, not just the facts. *The Conversation*. Published March 6, 2017. Accessed May 23, 2023.  
<http://theconversation.com/communicating-climate-change-focus-on-the-framing-not-just-the-facts-73028>
212. Carrington D. Why the Guardian is changing the language it uses about the environment. *The Guardian*.  
<https://www.theguardian.com/environment/2019/may/17/why-the-guardian-is-changing-the-language-it-uses-about-the-environment>. Published May 17, 2019. Accessed August 7, 2023.
213. Youra S. Climate Doomism Is the New Climate Denial. *Medium*. Published 2021. Accessed May 23, 2023.  
<https://medium.com/climate-conscious/climate-doomism-is-the-new-climate-denial-f4a48ddd970>
214. Stosny S. He once called it ‘election stress disorder.’ Now the therapist says we’re suffering from this. *The Washington Post*. Published 2017. Accessed May 24, 2023.  
<https://www.washingtonpost.com/news/inspired-life/wp/2017/02/06/suffering-from-headline-stress-disorder-since-trumps-win-youre-definitely-not-alone/?noredirect=on>
215. Valle GD. 3 Years After the El Paso Shooting, “Environmental” Nativism Is Spreading. Published online August 3, 2022. Accessed August 21, 2023.  
<https://www.thenation.com/article/society/el-paso-shooting-xenophobia/>

216. Marlon JR, Bloodhart B, Ballew MT, et al. How Hope and Doubt Affect Climate Change Mobilization. *Front Commun.* 2019;4. Accessed September 16, 2023. <https://www.frontiersin.org/articles/10.3389/fcomm.2019.00020>
217. Leiserowitz A, Maibach E, Rosenthal S, et al. Politics & Global Warming, April 2022. Yale Program on Climate Change Communication. Published 2022. Accessed March 20, 2023. <https://climatecommunication.yale.edu/publications/politics-global-warming-april-2022/toc/11/>
218. More in Common. Americans seek stories of solutions and inspiration from the media. More in Common US Newsletter. Published March 10, 2023. Accessed May 23, 2023. <https://moreincommon.substack.com/p/americans-seek-stories-of-solutions>
219. Lack B. Storytelling Will Save the Earth. *Wired*. Published online 2022. Accessed May 23, 2023. <https://www.wired.com/story/environment-climate-change-storytelling/>
220. Zak PJ. Why Inspiring Stories Make Us React: The Neuroscience of Narrative. *Cerebrum Dana Forum Brain Sci.* 2015;2015:2.
221. Riedlinger M, Massarani L, Joubert M, Baram-Tsabari A, Entradas M, Metcalfe J. Telling stories in science communication: case studies of scholar-practitioner collaboration. *J Sci Commun.* 2019;18(5):N01. doi:10.22323/2.18050801
222. Moezzi M, Janda KB, Rotmann S. Using stories, narratives, and storytelling in energy and climate change research. *Energy Res Soc Sci.* 2017;31:1-10. doi:10.1016/j.erss.2017.06.034
223. Taylor R. Culture, Deep Narratives and.... Whac-A-Mole? Inter-Narratives. Published April 29, 2022. Accessed August 1, 2023. <https://medium.com/inter-narratives/culture-deep-narratives-and-whac-a-mole-16cc1ecfc0a9>
224. Tickell P. The Manifesto for Moral Imagination. *Medium*. Published April 12, 2021. Accessed August 1, 2023. <https://medium.com/moral-imaginations/a-manifesto-for-moral-imagination-dbf62f0cb7aa>
225. Saltmarshe E. Using Story to Change Systems. *Stanford Social Innovation Review*. Published February 20, 2018. Accessed August 1, 2023. [https://ssir.org/articles/entry/using\\_story\\_to\\_change\\_systems](https://ssir.org/articles/entry/using_story_to_change_systems)
226. Harari YN. *Sapiens: A Brief History of Humankind*. Vintage Books; 2015.
227. Cheyfitz K. Harnessing Narrative Persuasion for Good. *Medium*. Published May 26, 2023. Accessed August 1, 2023. <https://medium.com/@kirkcheyfitz/harnessing-narrative-persuasion-for-good-6d55a5c213b3>

228. Akomolafe B. The Invitation of the Crack with Dr. Bayo Akomolafe. Coaches Rising. Published January 11, 2023. Accessed August 1, 2023. <https://www.coachesrising.com/podcast/the-invitation-of-the-crack-with-dr-bayo-akomolafe/>
229. Center for Humane Technology. The A.I. Dilemma. YouTube. Published March 9, 2023. Accessed August 1, 2023. <https://www.youtube.com/watch?v=xoVJKj8lcNQ>
230. Crompton T. Research shows that research isn't good at changing people's minds. CC Foundation. Published July 28, 2022. Accessed July 20, 2023. <https://commoncausefoundation.org/research-shows-that-research-isnt-good-at-changing-peoples-minds/>
231. Nia Tero. Indigenous Storytelling and Narrative Sovereignty at Big Sky.... Nia Tero. Published 2023. Accessed May 23, 2023. <https://www.niatero.org/stories/indigenous-storytelling-narrative-sovereignty-big-sky-documentary-film-festival-2023>
232. Howarth C, Parsons L, Thew H. Effectively Communicating Climate Science beyond Academia: Harnessing the Heterogeneity of Climate Knowledge. *One Earth*. 2020;2(4):320-324. doi:10.1016/j.oneear.2020.04.001
233. Corner A, Webster R, Teriete C. *Climate Visuals: Seven Principles for Visual Climate Change Communication (Based on International Social Research)*. Oxford: Climate Outreach; 2015. <https://climateoutreach.org/reports/climate-visuals-seven-principles-for-visual-climate-change-communication/>
234. Ulibarri S. Do you believe in climate solutions? You just might be a solarpunk. *Fix*. Published April 4, 2022. Accessed August 28, 2023. <https://grist.org/fix/climate-fiction/do-you-believe-in-climate-solutions-you-just-might-be-a-solarpunk/>
235. Olson E. Solarpunk: The Power of an Aesthetic. *Climate Review*. Published January 15, 2022. Accessed August 28, 2023. <https://www.theclimatechangereview.com/post/solarpunk-the-power-of-an-aesthetic>
236. Riley J. Yellow Dot Studios' Staci Roberts-Steele Believes Comedy Can Save Our Planet. *Variety*. Published May 19, 2023. Accessed August 28, 2023. <https://variety.com/2023/digital/features/yellow-dot-studios-staci-roberts-steele-comedy-climate-change-1235618265/>
237. DeVore E. *Lights, Camera, Climate Action: Investigating Emotional Responses to Climate Change Trailers (Documentary, Television, & Narrative Film)*. Portland State University; 2023. doi:10.15760/honors.1399

238. Dhiman B. Games as Tools for Social Change Communication: A Critical Review. *Glob Media J.* 2023;21(61). doi:10.36648/1550-7521.21.61.357
239. Baden D. The missing ingredient to fight the climate crisis: positive fictional role models. *The Conversation*. Published February 23, 2022. Accessed May 23, 2023. <http://theconversation.com/the-missing-ingredient-to-fight-the-climate-crisis-positive-fictional-role-models-177684>
240. Bauck W. 'The visuals of today help create the reality of tomorrow:' Why Hollywood is finally tackling climate change onscreen. *Fast Company*. Published 2023. Accessed May 25, 2023. <https://www.fastcompany.com/90856208/the-visuals-of-today-help-create-the-reality-of-tomorrow-why-hollywood-is-finally-tackling-climate-change-onscreen>
241. Camargo L, Kodikara T. Climate Heroes Ain't Saints. *Good Energy*. Accessed September 11, 2023. <https://www.goodenergystories.com/>
242. Narrative Arts. What is public narrative? *Narrative Arts*. Accessed May 23, 2023. <https://narrativearts.org/article/public-narrative/>
243. Long KNG, Kim ES, Chen Y, Wilson MF, Worthington Jr EL, VanderWeele TJ. The role of Hope in subsequent health and well-being for older adults: An outcome-wide longitudinal approach. *Glob Epidemiol.* 2020;2:100018. doi:10.1016/j.gloepi.2020.100018
244. Geiger N, Dwyer T, Swim JK. Hopium or empowering hope? A meta-analysis of hope and climate engagement. *Front Psychol.* 2023;14. Accessed August 30, 2023. <https://www.frontiersin.org/articles/10.3389/fpsyg.2023.1139427>
245. Niranjana A. Anger is most powerful emotion by far for spurring climate action, study finds. *The Guardian*. <https://www.theguardian.com/environment/2023/aug/21/anger-is-most-powerful-emotion-by-far-for-spurring-climate-action-study-finds>. Published August 21, 2023. Accessed August 30, 2023.
246. de Ferrer M. "It's not about saving the planet": Christiana Figueres on COP26, climate grief & stubborn optimism. *euronews*. Published October 23, 2021. Accessed August 30, 2023. <https://www.euronews.com/green/2021/10/23/it-s-not-about-saving-the-planet-christiana-figueres-on-cop26-climate-grief-stubborn-optim>
247. Solnit R. What if climate change meant not doom – but abundance? *Washington Post*. Published March 15, 2023. Accessed May 23, 2023. <https://www.washingtonpost.com/opinions/2023/03/15/rebecca-solnit-climate-change-wealth-abundance/>
248. Tickell A. The role of creative industries in driving change. *Green World*. Published May 22, 2020. Accessed September 13, 2023. <https://greenworld.org.uk/article/role-creative-industries-driving-change>

249. UNESCO, International Confederation of Societies of Authors and Composers, Ernst & Young. Cultural times - The first global map of cultural and creative industries. Published online December 2015.  
[https://en.unesco.org/creativity/sites/creativity/files/cultural\\_times.\\_the\\_first\\_global\\_map\\_of\\_cultural\\_and\\_creative\\_industries.pdf](https://en.unesco.org/creativity/sites/creativity/files/cultural_times._the_first_global_map_of_cultural_and_creative_industries.pdf)
250. Vidorreta I, Garatea J. Opinion: How cultural and creative industries can contribute to the green transition. Greenovate! Europe. Published January 25, 2023. Accessed September 13, 2023.  
<https://greenovate-europe.eu/opinion-how-cultural-and-creative-industries-can-contribute-to-the-green-transition/>
251. Bryant D. Why creative industries won't follow PR lead on climate change. The Guardian. <https://www.theguardian.com/sustainable-business/blog/creative-industries-pr-climate-change-marketing>. Published August 11, 2014. Accessed September 13, 2023.
252. Sherwin C. The creative industry needs to spur a new era of creative sustainability. The Guardian. <https://www.theguardian.com/sustainable-business/blog/creative-industry-new-era-sustainability>. Published June 24, 2013. Accessed September 13, 2023.
253. Amer H, Wynton L. Brian Eno – “We need the creative industry to help inspire climate action” | Imperial News. Imperial College London. Published November 25, 2022. Accessed September 13, 2023.  
<https://www.imperial.ac.uk/news/241832/brian-eno-we-need-creative-industry/>
254. Rudman H. Culture's role in environmental change. The Guardian. <https://www.theguardian.com/culture-professionals-network/culture-professionals-blog/2013/jul/15/creative-industries-environmental-change>. Published July 15, 2013. Accessed September 13, 2023.
255. Ormesher E. Spoof campaign mocks fossil fuel's recruitment of influencers to clean up image. The Drum. Published August 25, 2023. Accessed August 29, 2023.  
<https://www.thedrum.com/news/2023/08/25/spoof-campaign-mocks-fossil-fuel-s-recruitment-influencers-clean-up-image>
256. Whiting T. “Sustainable Style”: The Truth Behind The Marketing of H&M's Conscious Collection. Medium. Published June 27, 2019. Accessed September 13, 2023.  
<https://tabitha-whiting.medium.com/sustainable-style-the-truth-behind-the-marketing-of-h-ms-conscious-collection-805eb7432002>
257. Shepardson D. U.S. FTC sues Volkswagen over diesel advertising claims. Reuters. Published March 26, 2016. Accessed September 13, 2023.  
<https://www.reuters.com/article/us-volkswagen-emissions-idUSKCN0WV1QN>

258. Addley E. British Museum ends BP sponsorship deal after 27 years. The Guardian. <https://www.theguardian.com/culture/2023/jun/02/british-museum-ends-bp-sponsorship-deal-after-27-years>. Published June 2, 2023. Accessed September 17, 2023.
259. Culture Unstained. RSC draws an early curtain on BP sponsorship deal. Culture Unstained. Published 2019. Accessed May 23, 2023. <https://cultureunstained.org/2019/10/02/rsc-draws-an-early-curtain-on-bp-sponsorship-deal/>
260. Culture Unstained. BP sponsorship of British Museum ends after 27 years, as tide turns on fossil fuel funding of the arts. Culture Unstained. Published June 2, 2023. Accessed August 7, 2023. <https://cultureunstained.org/2023/06/02/bp-sponsorship-of-british-museum-ends-after-27-years-as-tide-turns-on-fossil-fuel-funding-of-the-arts/>
261. Hausfather Z. Global CO2 emissions have been flat for a decade, new data reveals. World Economic Forum. Published November 11, 2021. Accessed August 30, 2023. <https://www.weforum.org/agenda/2021/11/global-co2-emissions-fossil-fuels-new-data-reveals/>
262. Jacobson S. Extinction Rebellion urges ad industry to use its power for good. The Guardian. <https://www.theguardian.com/environment/2019/may/19/extinction-rebellion-urges-ad-industry-to-use-its-power-for-good>. Published May 19, 2019. Accessed August 30, 2023.
263. Gutierrez L. Art and Creativity: Essential Components of Sustainability. Sustainable Earth. Published April 21, 2023. Accessed September 15, 2023. <https://sustainable-earth.org/art-and-creativity/>,  
<https://sustainable-earth.org/art-and-creativity/>
264. Leach A. 12 ways the arts can encourage climate action. The Guardian. <https://www.theguardian.com/global-development-professionals-network/2016/apr/25/12-ways-the-arts-can-encourage-climate-action>. Published April 25, 2016. Accessed September 17, 2023.
265. Gianatasio D. Coors Light and Droga5 Opened a Plastic-Free “Future Mart” in NYC. Muse by Clio. Published March 24, 2022. Accessed August 1, 2023. <https://musebyclio.io/environment/coors-light-and-droga5-opened-plastic-free-future-mart-nyc>
266. European Commission - Joint Research Centre. The Future of Cities. European Commission. Accessed September 18, 2023. <https://urban.jrc.ec.europa.eu/thefutureofcities/>
267. United Nations. Education is key to addressing climate change. United Nations. Accessed August 29, 2023. <https://www.un.org/en/climatechange/climate-solutions/education-key-addressing-climate-change>



268. Grosse C. Climate Justice Movement Building: Values and Cultures of Creation in Santa Barbara, California. *Soc Sci.* 2019;8(3):79. doi:10.3390/socsci8030079
269. Obach BK. In Defense of Doom and Gloom: Science, Sensitivity, and Mobilization in Teaching about Climate Change. *Teach Sociol.* Published online March 31, 2023:0092055X231159094. doi:10.1177/0092055X231159094
270. Yang M. 'Face it head on': Connecticut makes climate change studies compulsory. *The Guardian.* Published 2022. Accessed May 23, 2023. <https://www.theguardian.com/education/2022/dec/17/climate-change-studies-connecticut>
271. Burgen S. Barcelona students to take mandatory climate crisis module from 2024. *The Guardian.* <https://www.theguardian.com/world/2022/nov/12/barcelona-students-to-take-mandatory-climate-crisis-module-from-2024>. Published November 12, 2022. Accessed May 23, 2023.
272. Kite Insights. Every job is a climate job - Why corporate transformation needs climate literacy. Published online June 2022. <https://kiteinsights.com/wp-content/uploads/2022/06/Every-Job-Is-A-Climate-Job-Kite-Insights.pdf>
273. Larsen N. What Is 'Futures Literacy' and Why Is It Important? *FARSIGHT.* Published June 25, 2020. Accessed August 6, 2023. <https://medium.com/copenhagen-institute-for-futures-studies/what-is-futures-literacy-and-why-is-it-important-a27f24b983d8>
274. KnowESG, Netflix, Inc. Netflix Highlights Progress Made on Sustainability. KnowESG. Published March 28, 2023. Accessed July 20, 2023. <https://www.knowesg.com/companies/netflix-highlights-progress-made-on-sustainability-28032023>
275. Sivers D. Derek Sivers: How to start a movement | TED Talk. TED. Published February 2010. Accessed August 30, 2023. [https://www.ted.com/talks/derek\\_sivers\\_how\\_to\\_start\\_a\\_movement](https://www.ted.com/talks/derek_sivers_how_to_start_a_movement)
276. Ad Council. The Ad Council and COVID Collaborative Reveal 'It's Up To You' Campaigns to Educate Millions of Americans about COVID-19 Vaccines. Ad Council Org. Published 2021. Accessed May 23, 2023.
277. Palanivel T. How Cultural and Creative Industries Can Power Human Development in the 21st Century. United Nations; 2019. Accessed August 28, 2023. <https://hdr.undp.org/content/how-cultural-and-creative-industries-can-power-human-development-21st-century>
278. Thompson C. The Power and Potential of Marketing's Brainprint. Cambridge Institute for Sustainability Leadership (CISL). Published July 25, 2023. Accessed August 29, 2023. <https://www.cisl.cam.ac.uk/news/blog/power-and-potential-marketings-brainprint>

279. Mahdawi A. Can marketing save the planet? World Federation of Advertisers. Published October 29, 2021. Accessed August 29, 2023. <https://wfanet.org/knowledge/item/2021/10/29/Can-marketing-save-the-planet>
280. Ballhaus W, Chow W, Rivet E. Resetting expectations, refocusing inward and recharging growth - Perspectives from the Global Entertainment & Media Outlook 2023–2027. Published online 2023. Accessed August 27, 2023. <https://www.pwc.com/gx/en/industries/entertainment-media/outlook/downloads/PwC-GEMO-2023-PDF.pdf>
281. Responsible Media Forum. The Superpower of Media - Mirrors or Movers II: Managing the Societal Impacts of Content; 2020.
282. Donnelly K. Decoding Media Impact: Insights, Advice & Recommendations. Published online January 2020. <https://mediaimpactfunders.org/wp-content/uploads/2020/01/MIF-Guide-Digital-FNL.pdf>
283. Goodwill B. A Brief History of Public Service Advertising. PSA Research Center. Published January 6, 2020. Accessed May 23, 2023. <https://www.psaresearch.com/a-brief-history-of-public-service-advertising/>
284. Sison MD. Creative Strategic Communications: A Case Study of Earth Hour. *Int J Strateg Commun.* 2013;7(4):227-240. doi:10.1080/1553118X.2013.826227
285. Qustodio. Screen Time All the Time - Qustodio annual report on children’s digital habits. Qustodio. Published 2020. Accessed August 16, 2023. [https://qweb.cdn.prismic.io/qweb/da3cbc01-68b0-4e50-a18f-a9a3a0c74a72\\_EN\\_Kids+and+Apps+annual+report\\_20210408.pdf](https://qweb.cdn.prismic.io/qweb/da3cbc01-68b0-4e50-a18f-a9a3a0c74a72_EN_Kids+and+Apps+annual+report_20210408.pdf)
286. Greenfield R. How TikTok can mobilize young people to take climate action. *The Drum.* Published 2022. Accessed May 23, 2023. <https://www.thedrum.com/opinion/2022/11/14/how-tiktok-can-mobilize-young-people-take-climate-action>
287. Cecilli E, Allen D, Sachs M. Brandpie CEO Purpose Report 2022. Published 2022. <https://www.brandpie.com/thinking>
288. Net Zero Tracker. Global Net Zero Coverage. Accessed May 23, 2023. <https://zerotracker.net/>
289. Ortis V. Net zero and beyond: between climate leaders and climate lagging companies. *Carbonsink.* Published November 3, 2022. Accessed September 17, 2023. <https://carbonsink.it/en/net-zero-and-beyond-between-climate-leaders-and-climate-lagging-companies/>

290. Open Text. The Importance of an Ethical Supply Chain.; 2022.  
<https://www.opentext.com/assets/documents/en-US/pdf/opentext-wp-the-importance-of-an-ethical-supply-chain-en.pdf>
291. Stobierski T. 15 Eye-Opening Corporate Social Responsibility Statistics. Harvard Business Insights. Published June 15, 2021. Accessed August 21, 2023.  
<https://online.hbs.edu/blog/post/corporate-social-responsibility-statistics>
292. Kronthal-Sacco R, Whelan T. Sustainable Market Share Index. Published online April 2023.  
<https://www.stern.nyu.edu/sites/default/files/2023-04/FINAL%202022%20CSB%20Report%20for%20website.pdf>
293. SB Insight. Sustainable Brand Index Official Report 2023 - Europe's Largest Brand Study on Sustainability; 2023:81. <https://www.sb-index.com/rankings>
294. Brand Finance. Sustainability Perceptions Index 2023 - The inaugural report on the value of sustainability perceptions to the world's leading brands. Published online January 2023.  
<https://static.brandirectory.com/reports/brand-finance-sustainability-perceptions-index-2023-full-report.pdf>
295. Bourne J. Salesforce State of Marketing report promotes empathy, AI, and more focused KPIs. Marketing Tech News. Published May 22, 2020. Accessed May 23, 2023.  
<https://www.marketingtechnews.net/news/2020/may/22/salesforce-state-of-marketing-report-promotes-empathy-ai-and-more-focused-kpis/>
296. Accenture. Accenture Life Trends 2022; Published online in 2023.
297. Vermeulen F. Many Strategies Fail Because They're Not Actually Strategies. Harvard Business Review. Published November 2017. Accessed August 1, 2023.  
[https://hbr.org/2017/11/many-strategies-fail-because-theyre-not-actually-strategies?utm\\_medium=social&utm\\_campaign=hbr&utm\\_source=LinkedIn&tpcc=orgsocial\\_edit](https://hbr.org/2017/11/many-strategies-fail-because-theyre-not-actually-strategies?utm_medium=social&utm_campaign=hbr&utm_source=LinkedIn&tpcc=orgsocial_edit)
298. Magossi A, Beltrán LA, Ramos LP, Moreno KVC. Inside Patagonia Brand Values and Communication. TDH Online Agency. Published February 1, 2021. Accessed May 23, 2023.  
<https://thedigitalhacks.com/inside-patagonia-brand-values-and-communication/>
299. Aratani L. 'We've lost the right to be pessimistic': Patagonia treads fine line tackling climate crisis as for-profit company. The Guardian.  
<https://www.theguardian.com/business/2023/mar/12/patagonia-climate-crisis-for-profit-company>. Published March 12, 2023. Accessed May 23, 2023.
300. Scheybani O. How advertising has become an agent of social change. Medium. Published January 16, 2019. Accessed August 28, 2023.  
<https://medium.com/@moonstorming/how-advertising-has-become-an-agent-of-social-change-148aa0ef303a>

301. Business Standard. Can advertising affect social change? Business Standard. Published December 29, 2013. Accessed August 28, 2023.  
[https://www.business-standard.com/article/management/can-advertising-affect-social-change-113122900633\\_1.html](https://www.business-standard.com/article/management/can-advertising-affect-social-change-113122900633_1.html)
302. Kirk R. Advertisers must adopt a “lean” mindset as the demand for net zero media plans grows. WARC. Published 2022. Accessed May 23, 2023.  
<https://www.warc.com/newsandopinion/opinion/advertisers-must-adopt-a-lean-mindset-as-the-demand-for-net-zero-media-plans-grows/en-gb/5639>
303. Purpose Disruptors. Advertised Emissions - The Temperature Check 2022; 2022. Accessed May 29, 2023.  
[https://static1.squarespace.com/static/5cdeba54c2750a0001b399a0/t/63887cf13140c76b88de6dad/1669889269360/Advertised\\_Emissions\\_Report\\_2022\\_v1H\\_pages.pdf](https://static1.squarespace.com/static/5cdeba54c2750a0001b399a0/t/63887cf13140c76b88de6dad/1669889269360/Advertised_Emissions_Report_2022_v1H_pages.pdf)
304. McCright AM. The effects of gender on climate change knowledge and concern in the American public. *Popul Environ.* 2010;32(1):66-87. doi:10.1007/s11111-010-0113-1
305. Arbuckle M, Mercer M. Economic outlook and the gender gap in attitudes about climate change. *Popul Environ.* 2020;41(4):422-451. doi:10.1007/s11111-020-00343-9
306. Parguel B, Benoit-Moreau F, Russell CA. Can evoking nature in advertising mislead consumers? The power of ‘executional greenwashing’. *Int J Advert.* 2015;34(1):107-134. doi:10.1080/02650487.2014.996116
307. do Paço AMF, Reis R. Factors Affecting Skepticism toward Green Advertising. *J Advert.* 2012;41(4):147-155. doi:10.1080/00913367.2012.10672463
308. Wheless E. Gen Z marketing – everything brands need to know about reaching young consumers. *Ad Age.* Published July 18, 2023. Accessed August 1, 2023.  
<https://adage.com/article/marketing-news-strategy/gen-z-marketing-everything-brands-need-know-about-reaching-young-consumers/2504646>
309. Morgan B. 15 Stats About Post-Covid Customer Service. *Forbes.* Published March 15, 2022. Accessed September 17, 2023.  
<https://www.forbes.com/sites/blakemorgan/2022/03/15/15-stats-about-post-covid-customer-service/>
310. Future of Good. The Future of Good Report. Future of Good. Accessed May 23, 2023.  
<https://www.futureofgoodreport.com>
311. Sweeney E. Study: Brands with a purpose grow 2x faster than others. *Marketing Dive.* Published 2018. Accessed May 23, 2023.  
<https://www.marketingdive.com/news/study-brands-with-a-purpose-grow-2x-faster-than-others/521693/>

312. Christie D. Unilever increases spend on purpose-driven marketing. Marketing Dive. Accessed May 23, 2023. <https://www.marketingdive.com/news/unilever-increases-spend-on-purpose-driven-marketing/571482/>
313. Vivan D. How Natura became an even more sustainable company. Believe Earth. Published November 24, 2017. Accessed August 4, 2023. <https://believe.earth/en/how-natura-became-an-even-more-sustainable-company/>
314. Mathiyazhagan, S, Salam M, Willis HA, Patton DU. Social work in metaverse: addressing tech policy gaps for racial and mental health equity. Internet Policy Review. Published February 16, 2022. Accessed September 17, 2023. <https://policyreview.info/articles/news/social-work-metaverse-addressing-tech-policy-gaps-racial-and-mental-health-equity/1619>
315. Google. Using AI to fight climate change. Google DeepMind. Published July 21, 2023. Accessed August 30, 2023. <https://www.deepmind.com/blog/using-ai-to-fight-climate-change>
316. Nordgren A. Artificial intelligence and climate change: ethical issues. J Inf Commun Ethics Soc. 2022;21(1):1-15. doi:10.1108/JICES-11-2021-0106
317. Salian I. Earth Day and AI: 5 Ways Innovators Are Protecting the Planet. NVIDIA. Published April 21, 2023. Accessed July 24, 2023. <https://blogs.nvidia.com/blog/2023/04/21/earth-day-ai-accelerated-computing/>
318. Climate Policy Radar. Climate Policy Radar | AI for climate law and policy research. Climate Policy Radar. Accessed May 31, 2023. <https://www.climatepolicyradar.org/>
319. Leal Filho W, Wall T, Rui Mucova SA, et al. Deploying artificial intelligence for climate change adaptation. Technol Forecast Soc Change. 2022;180:121662. doi:10.1016/j.techfore.2022.121662
320. Cheong S, Sankaran K, Bastani H. Artificial intelligence for climate change adaptation. WIREs Data Min Knowl Discov. 2022;12(5). doi:10.1002/widm.1459
321. Kaack LH, Donti PL, Strubell E, Kamiya G, Creutzig F, Rolnick D. Aligning artificial intelligence with climate change mitigation. Nat Clim Change. 2022;12(6):518-527. doi:10.1038/s41558-022-01377-7
322. World Economic Forum. Blockchain for Scaling Climate Action - White Paper.; 2023. [https://www3.weforum.org/docs/WEF\\_Blockchain\\_for\\_Scaling\\_Climate\\_Action\\_2023.pdf](https://www3.weforum.org/docs/WEF_Blockchain_for_Scaling_Climate_Action_2023.pdf)
323. Healy-Adonis L, Tombazzi A. From passive to (pleasure) active(ism): Reimagining Charity Retail. In: Design Research Society. ; 2023:115-123. <https://ualresearchonline.arts.ac.uk/id/eprint/20236/1/DRSFC%20Proceedings%20SIG%20collouquium.pdf#page=92>

324. Dangerfield MB. Power to the People. Tate. Accessed May 23, 2023. <https://www.tate.org.uk/art/art-terms/p/photojournalism/power-people>
325. Michaelson R, Milman O. Civil society groups report surveillance and intimidation at Cop27. The Guardian. <https://www.theguardian.com/environment/2022/nov/10/civil-society-groups-report-surveillance-and-intimidation-at-cop27-egypt>. Published November 10, 2022. Accessed August 30, 2023.
326. Neas S, Ward A, Bowman B. Young people's climate activism: A review of the literature. *Front Polit Sci.* 2022;4. Accessed August 1, 2023. doi:10.3389/fpos.2022.940876
327. Gasparri G, Imbago-Jácome D, Lakhani H, Yeung W, El Omrani O. Adolescents and youth are prioritising human rights in the climate change agenda. *BMJ.* Published online October 11, 2022;o2401. doi:10.1136/bmj.o2401
328. The Climate Reality Project. You've heard of greenwashing, but what is youthwashing? The Climate Reality Project. Published April 5, 2023. Accessed August 7, 2023. <https://www.climatealityproject.org/blog/youve-heard-greenwashing-what-youthwashing>
329. Michaelson R. 'Explosion' in number of fossil fuel lobbyists at Cop27 climate summit. The Guardian. <https://www.theguardian.com/environment/2022/nov/10/big-rise-in-number-of-fossil-fuel-lobbyists-at-cop27-climate-summit>. Published November 10, 2022. Accessed August 21, 2023.
330. Astor M. How the Politically Unthinkable Can Become Mainstream. The New York Times. Published 2019. Accessed June 6, 2023. <https://www.nytimes.com/2019/02/26/us/politics/overton-window-democrats.html>
331. Harvard Law Review. Juliana v. United States - Comment on 947 F.3d 1159 (9th Cir. 2020). *Fed Courts - Recent Case.* 2021;134(5). Accessed June 6, 2023. <https://harvardlawreview.org/print/vol-134/juliana-v-united-states/>
332. Gelles D, Baker M. Judge Rules in Favor of Montana Youths in a Landmark Climate Case. The New York Times. <https://www.nytimes.com/2023/08/14/us/montana-youth-climate-ruling.html>. Published August 14, 2023. Accessed August 29, 2023.
333. Global Action Plan. Supercharging Climate Conversations among Young People: A Guide for Media.; 2022. [https://www.globalactionplan.org.uk/files/climate\\_conversation\\_guide\\_-\\_media\\_virgin\\_media\\_o2\\_gap\\_research.pdf](https://www.globalactionplan.org.uk/files/climate_conversation_guide_-_media_virgin_media_o2_gap_research.pdf)
334. University of Sheffield. Tackling climate change using creative communication (digital character). University of Sheffield | Behavioural Research for Inclusivity, Sustainability and Technological Transformation. Published May 5, 2022. Accessed August 2, 2023. <https://www.sheffield.ac.uk/bristt/research/research-projects/tackling-climate-change-using-creative-communication-digital-character>

335. MIT Media Lab. Project Overview - Pantheon. MIT Media Lab. Accessed May 23, 2023. <https://www.media.mit.edu/projects/pantheon-new/overview/>
336. United Nations Climate Change. UN Climate Change Global Innovation Hub COP 27 Event Report. U N. Published online 2023. [https://unfccc.int/sites/default/files/resource/UGIH\\_COP27\\_Event\\_Report\\_FINAL\\_2023.pdf](https://unfccc.int/sites/default/files/resource/UGIH_COP27_Event_Report_FINAL_2023.pdf)
337. Earnshaw J. Reading grab headlines with kit stripes explanation on national television. Reading Chronicle. Published January 30, 2023. Accessed May 23, 2023. <https://www.readingchronicle.co.uk/sport/23285477.reading-fc-grab-headlines-climate-change-stripes-explained-tie/>
338. Unilever, Behavioural Insights Team. Unilever reveals social media encourages sustainable choices. Unilever. Published March 17, 2023. Accessed September 17, 2023. <https://www.unilever.com/news/news-search/2023/how-social-media-is-helping-people-make-the-switch-to-sustainability/>
339. Dekoninck H, Schmuck D. The Mobilizing Power of Influencers for Pro-Environmental Behavior Intentions and Political Participation. *Environ Commun.* 2022;16(4):458-472. doi:10.1080/17524032.2022.2027801
340. Feller M. Can Instagram Influencers Help Save the Planet? *ELLE*. Published January 23, 2020. Accessed August 18, 2023. <https://www.elle.com/culture/career-politics/a30629637/sustainable-influencers-instagram-climate-crisis/>
341. Limb L. Shell joins BP and Total in U-turning on climate pledges 'to reward shareholders.' *euronews*. Published June 15, 2023. Accessed August 29, 2023. <https://www.euronews.com/green/2023/06/15/shell-joins-bp-and-total-in-u-turning-on-climate-pledges-to-reward-shareholders>
342. United Cities and Local Governments. Metropolitan Areas: The Localization of the Global Agendas - How Local Action Is Transforming Territories and Communities, GOLD V 2019. *metropolis*; 2020. [https://www.metropolis.org/sites/default/files/resources/GOLD-V\\_Metropolitan-Areas\\_2020.pdf](https://www.metropolis.org/sites/default/files/resources/GOLD-V_Metropolitan-Areas_2020.pdf)
343. Muradova L, Walker H, Colli F. Climate change communication and public engagement in interpersonal deliberative settings: evidence from the Irish citizens' assembly. *Clim Policy.* 2020;20(10):1322-1335. doi:10.1080/14693062.2020.1777928
344. Green Alliance. Power to the People: Shaping UK Climate Policy through Deliberative Democracy. Green Alliance; 2019. [https://green-alliance.org.uk/wp-content/uploads/2021/11/power\\_to\\_the\\_people.pdf](https://green-alliance.org.uk/wp-content/uploads/2021/11/power_to_the_people.pdf)