

ISOJ 2023: Day 2

Panel: *How to improve the coverage of the climate crisis and avoid the “Don’t Look up” scenario*

Chair: [John Schwartz](#), professor of practice, **School of Journalism and Media, UT Austin**

- [Manuela Andreoni](#), climate reporter, **The New York Times (Brazil)**
 - [Darryl Fears](#), environmental justice reporter, **The Washington Post**
 - [Vernon Loeb](#), executive editor, **Inside Climate News**
 - [Michael Webber](#), Josey Centennial Professor in Energy Resources, **UT Austin**
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John Schwartz Morning, everybody. Thanks everybody, and thank you, Rosental, for putting this together. So thank you for being with us for this morning panel on how to improve coverage of the climate crisis and avoid the “Don’t Look Up scenario”. Mallery has explained, for those who don’t watch every movie that’s been released, what it is. But how many people here actually saw it? All right. Pretty good representation here. I wanted so badly to love it, but Hollywood is still trying to figure out how to tell this story. They’re in a good crowd because, frankly, so are we as journalists, trying to figure out how to tell this story. I’m John Schwartz. I’ve spent 40 years in journalism, including a fair chunk on climate change, and I’m also associate director of UT’s Global Sustainability Leadership Institute, which prepares Longhorns for working in a business world that cares more and more about these issues. Some of our state officials might disagree, but if they want to fire me, I’m pretty easy to find. As I said, I’m a science writer, and I used to think that writing about climate change was largely about laying out the facts. I’ve learned a lot since then. The problem of climate change isn’t something you can deal with half-assedly. Rosental, can I say half-assedly? Is that okay? I already said it right. It takes commitment from reporters who have to climb a tough learning curve and from institutions that have to fund them.

We’re very lucky to have four amazing people to talk with you today, three journalists and an expert on energy and climate. **Manuela Andreoni** is a *New York Times* climate reporter based in Brazil, along with some amazing stories, which she’ll be talking about, she’s an author of the *NY Times* Climate Forward newsletter. She is a fellow at the Rainforest Investigation Network covering the Brazilian Amazon. She studied at the Federal University of Rio de Janeiro and received a master’s degree from Columbia University. **Darryl Fears** covers environmental justice, a new beat, at *The Washington Post*, where he’s worked for nearly 25 years. He led a series of stories in 2021 that were recognized as Pulitzer finalists, and also a member of the team that won a Pulitzer for a 2019 investigative series on global hotspots created by accelerated climate change. He’s currently a Harvard Nieman Fellow, trying not to dwell on the fact that his time there is ending. **Vernon Loeb** became executive editor at *Inside Climate News* after a 40-year newspaper career that included stops at the *Philadelphia Inquirer*, *The Washington Post*, *Los Angeles Times*, and *Houston Chronicle*. As Evan said, there is always a Texas angle. During his last stop as managing editor of *The Chronicle* from 2014 to 2018, he was fully invested in saving newspapers and never thought much about nonprofit news. Now that he’s running a nonprofit newsroom, he thinks the nonprofit sector has an important role to

play in the new ecosystem, and still thinks newspapers are among the nation's most important civic institutions. Dr. **Michael E. Webber** is the Josey Centennial Professor in Energy Resources in the Department of Mechanical Engineering at the University of Texas at Austin and CTO of Energy Impact Partners, a \$3 billion — with a B — clean tech venture fund. Webber's expertise spans research, and education and is at the convergence of engineering policy and commercialization on topics related to innovation, energy and the environment. His book, "Power Trip: the Story of Energy", which I did love, was published in 2019 by Basic Books with an award-winning six-part companion series that aired on PBS, Amazon Prime and Apple TV, starting Earth Day 2020. Thanks for being here, y'all. Each of you has a brief presentation worked up, and then I'll ask questions, and then we're going to open it up to questions from our crowd. When it's time for questions, everybody, please ask actual questions. We don't have time for statements or lengthy manifestos. All right. Let's start with you, Manuela.

Manuela Andreoni Hi, everyone. I'm very happy and honored to share this panel with all these wonderful people. I have a quick presentation about some of the strategies I've used to help readers understand and climate change and the biodiversity crisis — the other crises threatening humanity that we don't talk about that much. So my first strategy is to bring it closer. A lot of the causes of climate change and the biodiversity crisis are happening very far away from our readers, and it's really hard to help them understand how meaningful they are if they don't feel very connected to it. So one strategy that I've used is using investigative journalism to help readers connect with issues that are far away. As John said, I covered the Amazon rainforest in Brazil a bit, and that is an issue that readers of *The New York Times* don't feel very close to, so I use investigating supply chains to bring them a bit closer to it. Everyone can do it. I'm sharing some of the websites. If you think about a product that people close to you are buying, you can use these websites to try and understand how the trade flows work to connect your readers to them. So we did this to talk about how the appetite for leather car seats in the U.S. is fueling Amazon deforestation. We connected illegal deforestation happening in protected areas in the Amazon. Cattle that were raised in these areas then went to meatpacking companies that supply leather to major automakers that every reader we are writing to knows about like GM. In this way were able to connect issues that are far away to our readers.

Another strategy that I think is very cool is to surprise people. Oftentimes we are talking about issues that are very old, like climate change and the biodiversity crises. They are problems that kind of tend to repeat themselves because, hey, we haven't really addressed them fully yet. So how do we talk about illegal mining in the Amazon, which is a problem that has been plaguing the forests for decades? How do we give it a fresh look? So we use satellite imagery to track and map unregistered airstrips, illegal airstrips that fuel illegal mining in the Amazon. We partner with the Rainforest Investigations Network and *The Intercept* to map all these airstrips and gave a fresh look and help bring readers to the ground with us using satellite imagery.

The last strategy I want to talk about is something that yesterday a lot of people talked about is to make it personal. I really like it when Katharine Hayhoe from Nature Conservancy, says that when we're talking about these issues, we're not talking about saving the planet. We're talking... The planet is going to keep taking turns around the sun no matter what we do to it. We're talking about changing the planet in ways that are going to make it inhabitable to us. So we're talking about saving us. So I think it's important to really connect with readers in this very personal space of how things are changing in their own lives and how their own lives impact these changes. I know that a lot of times it's hard

to read the comment section, but the newsletter that we're writing now, Climate Forward, really helps us listen to readers in different ways and we try to incorporate some of what they're saying in our newsletter. Readers have responded very well to that. They really like reading their own stories in the newsletter. That really helps them engage with these issues. The newsletter also allows us to show that we reporters are human, too, and we are also worried sometimes and we're also feeling hopeful sometimes. Showing that there are humans behind the screen, I think helps people connect with the coverage a lot, too. And that's it. If you have ideas, please write to me.

Darryl Fears I don't have a slide presentation. Thank you. I thought we were going to walk... First, let me thank ISOJ for having me here. I'm really excited to be here. It's a pleasure to be among fellow journalists exploring new ways to fulfill our calling, which is telling the truth. I thought we were going to go up to the podium, but these chairs are so comfortable. I think I'm just going to stay and use these...

John Schwartz That's fine, unless you really want to be up there, in which case it's your panel. You get to do it the way you want.

Darryl Fears Yeah, I feel comfortable right here with my legs crossed. So how to improve coverage of the climate crisis in 5 minutes. We're living in this moment as though we're on some gorgeous beach, feeling the earth trembling beneath us and asking, "Did you feel that?" We look up and see that the shore has vanished, leaving marine animals to flop about, as one of the greatest forces of nature gathers for an onslaught. And we are like, "Do you see that?" When historians look back on our times, perhaps after the worst has happened. They just might ask, "Why didn't they see the signs? Why weren't they prepared? Why didn't they realize what was coming their way?" Some of the signs are these. Half a world away in the Pacific islands and not so far away in the Caribbean, the ocean is gradually climbing up the shores. California is currently experiencing unprecedented levels of precipitation after experiencing unprecedented levels of drought. Yes, weird things happen in the desert, but there was a time when these weather cycles were more harmonious. The Colorado River, a major source of drinking water in the West, is drying. Last year in the state next door, Louisiana, you could walk across the Mississippi River, dried as it was by rising heat. The warmest year on record, the hottest and deadliest fires, the largest and most frequent storms have all happened in this young century.

How should journalists tell this story to avoid the "Don't Look Up" scenario, which turned another way Is the heads buried in the sand scenario? News leaders must understand that this is an all-hands-on-deck story. It is the defining story of our time. It is not a moment for simply writing a memo to the staff saying that climate change is going to be a stronger focus. It is a moment for bolder leadership. It's a time to gather every person in a newsroom for a heart-to-heart discussion about how to comprehend and tell the story of an existential crisis better than how we're telling it. It requires re-imagining our storytelling and who these storytellers will be.

I'm not here to present my own newspaper as some kind of outlier, Because it's not. But *The Washington Post* has taken important steps to meet this challenge. In 2019, the climate team found that climate change has created hotspots around the world, where temperatures have far exceeded the dreaded tipping point for irreversible warming The scientists have warned about. We determined that revealing this truth required not only great reporting and writing, but deep data-driven research, Strong graphic arts, photography, sound, and editing that make stories more engaging for readers. The 12 climate stories that comprise "2°C: Beyond the Limit" had near cinematic appeal. It was an award-winning project, but beyond that, it was a foundation upon which to build a new model for telling these stories. Good reporters and writers will always be essential, but news organizations must recognize the value of artists, designers with skills, to present long and short stories as though they were feature films. Maybe a little over the top, but... We must help readers see the problem.

How does an industry achieve this with diminishing resources? By reconsidering its current priorities. Is horse race journalism, the scoop, the day to day political story, the day to day business story, a model for the past? How much of that is really needed? After the 2°C project, I was given an opportunity to cover what I might call the canary in the coal mine. It's another version of the climate story. A few words about the canary starting in 1911. For people who don't know what the canary is. Coal miners stuck canaries in their workplace to determine if deadly gases were lurking. If the bird died, bad sign. I decided to pay close attention to America's climate change canaries, Black, Indigenous, Latino, various people of color, along with the poor who are on the front lines of climate change and pollutions, and the canaries are not well. I covered the environmental justice movement — people in the lowest-lying areas, People who live near rail yards and power plants. These people are going to be able to tell us what the future looks like for all of us, and we must pay very close attention to their stories. How did I end this? We're only beginning to tell these stories. We need to make every effort to give them the time and attention they deserve.

Vernon Loeb Thanks, Darryl. When I covered national security for *The Washington Post* like 25 years ago, I was engaged in this sort of daily, mano-a-mano combat with *The New York Times*. I used to dread walking to the end of my driveway and picking up a little blue bag with the newspaper inside to see what *The Times* said and what I missed. I'm sure their reporters had the same experience.

I think if there's one thing that I'm enjoying about the nonprofit world after 40 years in newspapers, is seeing other journalists now, the ability to see other journalists now as collaborators and not competitors. We have a mantra. Thank you. We have a mantra at *Inside Climate News*: we don't have competitors, we only have partners. Now that we're on the ground in Texas, which we're really excited about... I see that so clearly in the way the *Texas Tribune* operates. *The Texas Tribune* has internalized this ethos as well. They are a fantastic partner, and they see us as a collaborator and not a competitor. They publish a lot of our stories, not all of them, but a lot of them, and we're really grateful for that. Then when they publish our story — Sewell can tell me — 35? I don't know how many newspapers in Texas, but *The Tribune* has become like a wire service for Texas. So our stories not only appear on our site, they appear on *The Tribune* site, but newspapers all over the state.

In my years at newspapers, newspapers were not the most collaborative enterprises ever. They were paranoid. They built walls around their content. They didn't want anybody to know what they were doing. But now I see even in newspapers, even competitive newspapers like Darryl's and Manuela's, are deeply into collaboration. I don't think they

collaborate with each other yet, but maybe they'll get there. Collaboration is increasingly the name of the tune. For climate change, it's so critical because climate change is an enormous story. It's the only story I've ever experienced in journalism that is truly global. There are no boundaries to it. It affects every town, every person, every town, every city, every nation in novel ways and sometimes similar ways. So the need to collaborate on this story is extraordinary. In the climate space, I think we're seeing that there's Covering Climate Now. We're part of a consortium called the Climate Desk. We try to build partners all over the country. We have a great partnership here in Texas. So I think if there's one thing the nonprofit sector has really contributed in the last, I don't know, 10 or 15 years during its growth... I mean, when I started in newspapers, there really weren't nonprofit news organizations. There was no need for them. Newspapers saturated the country and by and large, from TV and newspapers, that's where people got their news from. I think the numbers Joe Kahn, or was it Evan, used about the death of newspapers are really frightening and like John said, I love newspapers and I think newspapers continue to be incredibly important civic institutions in their cities and towns. One of the things we want to do is help newspapers and work with newspapers and help them crack the digital code, and sell digital subscriptions, and cover climate change.

To give you a sense of how this is playing out, this weekend, we're publishing a piece that we spent a lot of money on and a lot of time on, on the coming oilfield wastewater disposal crisis in Pennsylvania. Fracking in Pennsylvania — number two only to Texas — creates huge amounts of really toxic wastewater. This state really has no strategy and no wherewithal at this point to deal with it, to dispose of this waste. Much of this water had been going to Ohio, and Ohio has basically said enough, "We don't want Pennsylvania's water anymore, take care of your own wastewater." So we've got a big story running on our site tomorrow. Hopefully, it's also going to run in the *Pittsburgh Post-Gazette*. It's also going to run on a newspaper consortium in Pennsylvania called *Spotlight*, and it's going to run, I hope, on a public radio consortium in Pennsylvania called *Statewide Impact*. None of these entities existed 15 years ago. Everybody was in their silo and competing with each other, and now suddenly there's this sharing; there's this collaboration. If anything, is going to help make up for the loss of all of those local reporting. What was it like a quarter of newsroom personnel are now gone or laid off? If anything is going to help make up for that loss of really deep, meaningful information at the local level, it's going to be this kind of ethos of collaboration.

Inside Climate News started 15 years ago. It started as a two-person blog to fill gaps in climate coverage. Nobody was covering climate. My publisher, David Sassoon, realized there was this existential crisis that nobody was writing about. Well, that's changed. People are writing about it now. A lot of people are writing about it. The coverage is in some ways even like saturation, and yet the consciousness is not there. I feel every day this enormous sense of urgency related to this story. We're eight years after Paris and carbon emissions have yet to go down. In fact, they not only haven't gone down, they go up every year by a lot, with the possible exception of the pandemic year. The signs are all around us. The urgency is... Again, I feel it like more and more every day. I don't know if anybody caught the Al Gore, some people call that a rant, but I thought it was a great presentation at Davos where he just went off and talked about how serious this crisis is.

So, again, the need for this collaboration is, I think, more intense than ever. We're still trying to fill gaps, but now in a different way. We're trying to fill the regional gaps that exist in these areas where there are no newspapers anymore, in the areas where these 70 million Americans live, as someone said earlier, with one or no sources of information. Increasingly, we're filling these regional gaps. I think what we really have to confront, and

Darryl alluded to this, is the complacency at all levels — individual, local, regional, national and global — about climate change and about what's really what we're really confronted with and how urgent the situation is. We're all in this together, and I believe incredibly strongly in the power of journalism and the power of truth. A lot of our funders like to fund activists and advocates and we write about them and we cover them, but our point in those discussions is always there's a power to journalism that's unique, that's undeniable, and that powers the activists and the advocates. We're a critical part of the solution. If we're going to stave off this crisis, I think the journalist contribution is going to be enormous. So I'm happy to be in nonprofit news these days. I think these discussions that are really going on here about how we build this news ecosystem is so important, as is a commitment — I think Joe Khan expressed really well — to the fundamentals... Call it objectivity, quality reporting, however, you want to describe it, the fundamental commitment to truth and deep reporting and reporting facts and true things that matter, especially related to the climate.

Michael Webber Good to see you. I'm an engineer, so one of us is not like the others, but it's good to be here. I am a consumer of climate journalism. Sometimes I'm an expert, I have been quoted before. Sometimes I write op-eds. So I'm engaged in this universe as an engineer, and I'll make a couple of comments. One is the quality and quantity of climate reporting has improved so dramatically over the last 15 years. I think that we need to stop and recognize that we're actually headed a very good direction and things are so much better than they were before. There are a lot of reporters who've been on the beat for quite some time, so they've developed a lot of expertise and very extensive view on this, and as many more papers cover it. The placement of the coverage is now more front and center than it was before. I think it's really fantastic.

I organized a panel in 2012, so 11 years ago, on France and USA and competing views about climate change. David Sassoon was on the panel and Russell Gold, then at *The Wall Street Journal*. Ernie Moniz was our keynote speaker, and a month later Ernie was announced as Secretary of Energy. David got the Pulitzer a couple of months later. So no guarantees that will happen on this panel, but I just want to say that was sort of a sign that climate news... Yeah, we'll go for it. We'll do again. So climate news has come a long way. That was before; I feel like we were looking for these articles and now we can find them in many places. It's the nuances there, which I really appreciate.

A couple of things I would recommend or think of as opportunities for improvement. Manuela kind of hinted at this that there's room for hope. A lot of the doom and gloom of we're all going to die and our oceans are rising and there's saltwater intrusion and acidification... There's a lot of reason for concerns, all the reason for urgency. This is the most pressing, important global crisis for this century. Although I'm starting to worry about the rise of autocracy as a competing contention for that. In fact, if we can defend democracy, we can probably solve climate change more easily, so these are related, perhaps. So this is the issue, but there's actually a lot of reason for optimism. Weirdly, in Texas there's more reason for optimism than almost anywhere, which is bizarre and I'll explain in a second.

So first of all, as an engineer, I'm an optimist. The definition of an engineer is a problem solver, and I think to be a problem solver, you have to believe the problem can be solved. So engineers are kind of wired to be optimists. We can solve a problem. Now, the bad news of being an optimist is we're constantly disappointed when the problem isn't solved. I often wonder if it would be better to be a pessimist because then you're often pleasantly surprised when things work out, but we can argue about that later. But there are ways to

solve problems, and there's no hotter spot for climate denialism than Texas, just about. Governor Perry said that if we tackle climate change, we'd have to regulate human breath and that it's a Chinese hoax, and then he went on to run energy policy for America for a while. Governor Abbott has said that we're not touching climate change. Texas is decarbonizing faster than any other state in America and faster than any other country in the world except for perhaps England. So that's kind of fascinating that we don't even accept the science, we think it's ridiculous, yet we are doing it. In New York, France and other countries that have really sort of accepted and understand the science, are not doing it. So that's cause for optimism because it's a sign that the reasons Texans are doing have nothing to do with climate science. We often do the right things for all the wrong reasons; it's very typical in Texas. But it's just cheaper. The solutions are just cheaper. Wind and solar are cheaper than the other options, and we see benefits on air quality or avoiding water use for cooling power plants, that kind of thing. So if denying Texas can do it, then certainly the rest of the world can as well. So it gives me a reason for optimism.

Other reasons for optimism... I've got the honor and privilege to have taught over 2,000 engineering students in my classroom in the last 15 years, plus another thousand professionals through executive-ed, continuing-ed and professional education, plus another tens of thousands of students through a MOOC — a massive open online course on energy and climate. These students are committed, and they are taking positions of power. They are now some of them in their thirties, early forties, and they are in decision-making positions at companies and these companies who wish to recruit and retain people have to have a net zero statement or a climate statement. These same companies, if they want investment, a third of the world is ESG capital — I know ESG is now a loaded term, the environmental, social, and governance money... But like a third of the capital out there has investment criteria related to climate change of some sort and the customers are starting to demand it. So if you look at the market forces of employees, investors and customers, if you look at what the students want in the classroom, if you look at the actions of Texas, despite it all, there's a lot of reasons for optimism. I feel like the optimism somehow is missing, which is not only can we solve this, but in some places we are despite all odds, and as you solve it, you save money and all these other things. We had a couple of reports come out of my group over the last few months about all the money renewables have saved consumers in Texas, and it's in the billions of dollars per year. Sometimes if natural gas prices are high, it's like a billion dollars a month sometimes in Texas. Then all the water that saved, and all the air quality that has been approved, that kind of thing. So there are reasons for optimism. I think that's missing, which is we've got to take urgent action because the bad news is bad, and we need to avoid the bad news, but look at all the good stuff we get if we take action. It leads to more jobs and better jobs and cleaner everything, better equity with how we access energy, better equity of who suffers the air pollution, and everything else, the fenceline community, etc. So this is the good news that's missing. I think there's room for it alongside with the bad news.

Another couple of things about this. I think we can look at complex problems that we've saw before in the United States. I'm thinking of like traffic fatalities in the 1980s. We still have over 50,000, like 55,000, traffic fatalities a year in United States in the eighties. We're now down to like 30,000. Our fatalities have dropped despite the number of people and vehicle miles traveled going up like 50%. This was a complex problem, but we solved it with a lot of solutions: better airbags, crumple zones, anti-lock braking systems, a third brake light, better striping, better speed limit rules, better drunk driving enforcement rules, and comprehensive driver's education. A lot of things happened to make traffic fatalities better, and it's worked. That's usually the way it is for most complex problems. There's not a solution, and people often ask me, "What's your favorite? Is it wind or whatever?"

There's not one thing. It's going to be a suite of options, each of which improves the situation by a percent or so. But if you do enough, you get a lot of progress, and I think we'll have to use that also for the opioid crisis or wherever the crises are, we'll need a lot of solutions. That's something to keep in mind. I feel like oftentimes our narrative, which might be political or personal interests, is driven by one thing or another.

Another aspect that's often missing from the coverage, which I think warrants more, is the cost of doing nothing, which kind of taps into the despair like, "Oh, it's going to cost us much to tackle climate change in the trillions or tens of trillions." I think it's going to be tens of trillions to tackle climate change. I think it's going to be hundreds of trillions not to tackle it. For me, it's a lot cheaper to take action than not. We have evidence of that already in so many ways. This report I just told you about that we did in Texas — taking action on climate change, even though we didn't do it for climate change, saved consumers money, made money for local governments, made money for landowners, building wind farms, this kind of thing. So the cost of doing nothing is often left out, and actually the cost of the damages of CO2 is left out. So the false narrative is do we want to protect the economy or protect the environment? Of course, we want to do both. This is a false choice. It's not your false choices. It's put forward by politicians or stakeholders, but it comes out that way in the news sometimes. What happens is we're leaving out the cost of the CO2 pollution. Coal looks cheaper just because its damages are on a different column in the ledger, and we leave that out. The cost of coal pollution is significant on biodiversity loss or acid rain or greenhouse gases, everything else, like the land loss, you name it. We leave out those prices. So the conventional options look expensive or look cheap only because we're ignoring a lot of the costs that are somewhere else. We're not paying for it and the rates are paid for in our taxes or lost economic activity. So I think it's actually really good coverage, and it's improved so much in the last 15 years.

I've read all of your work at one point or another, and I think it's really remarkable and we should sort of celebrate that. Then there are some missing things about the complexity of what solutions look like — the cost of doing nothing and the benefits of the optimism. It's actually going to take us to a better place. It's not just that we need to take action so that people don't die, but we'll get some economic growth out of it. So thanks so much for having me on the panel, glad to be here for part of the conversation.

John Schwartz I think I'll work back, starting with Michael again. Very nice things you said about journalists and journalism, you gave me warm fuzzies and I do appreciate that. What are we still getting wrong? What does journalism still mess up now? You said not counting the cost of doing nothing. But when you deal with journalism, you get you get interviewed more than just about anybody I know...

Michael Webber I do a lot of interviews, and I think actually, for the most part, the reporting is accurate. So I have very few complaints, but there are a few things that I will cut out articles and give it to my engineers on their energy exams. I just had a final exam a couple of days ago. What's wrong with this article? There's two mistakes that show up a lot actually in energy climate reporting. One is confusing kilowatts and kilowatt hours, which is important, which is around the power sector. Kilowatts is the capacity to generate electricity and kilowatt hours is how much electricity you generate. But it's hard to blame journalists for that because the industry gets it wrong all the time, too. There are some technical mistakes that happen, which are mostly fun for engineers to see but don't have huge consequence. But it can be relevant because we'll talk about the capacity of a wind farm as 100 megawatts, but it only generates electricity like a third of the year. So the

number of megawatt hours it generates is different than say a 100-megawatt gas plant. So this can show up as consequential in reporting one way or another.

The other one, in terms of a technical mistake, is there'll be tons of CO2 reported and it's not clarified is English tons or metric tons, and there's a 10% difference which can make a difference. But also there is tons of CO2, tons of CO2 equivalent or tons of carbon, and these are all very different. So there are some technical things that can get missed which actually have consequences, especially when you think about methane and methane leaks and carbon dioxide equivalents, they will show up. But for the most part, I'm just kind of picking at the edges. It's pretty good. I would say the main things left out are the complexity of a solution set. There's no one solution; there will be many solutions, and the solutions might be different in Florida than in Texas or wherever. But also the cost of doing nothing, just repeating what I said. But also the cost of the conventional options. So I have my hackles go up to see a story like the new things that are cleaner are more expensive than the commercial ones, and that is not true. It only looks more expensive because we leave out all the damages, and so more comprehensive sort of honesty about, well, here's the damage of the current system and including that. That's missing from a lot of the reports.

John Schwartz Okay. Vernon, you have talked with me about your sort of holy crap moment with climate change, and sort of what led you to devote yourself to covering climate change now after so many other beats. Can you talk about that a little bit?

Vernon Loeb Yes. So August 2017, I woke up one morning and the city where I lived, Houston, Texas, was underwater — the entire city. Harvey dumped 51 inches of rain on Houston in two days. The city flooded massively, and it revealed all sorts of things about the city and to me revealed all sorts of things about climate change. And I wrote an op-ed piece that week for *The Washington Post* where I made that point and said at least some of what Houston is trying to deal with right now is from climate change. You wouldn't believe the howl of pushback I got, and the outrage from people *The Post* got in response to this column — climate change is nonsense, it's not about climate there's been flooding there before and on and on. I don't think if I wrote that same column today, the reaction would be the same. I think it's some of the progress you're talking about. I think there's been a huge shift in consciousness since 2017, so almost six years later. I think climate change is much more front and center in people's minds and awareness, and I think that's a sign that it's not all hopeless. I tend to be sort of a climate doomer myself. I spend so much time editing stories with these really troubling science and research in them, and I'm almost like suffering from climate PTSD. I do think there's a lot of positive things to focus on with renewables leading the way, obviously. I think the public awareness is part of it. Polls show that a large majority of Americans think we should be doing more about climate change, but that's it. We should be doing more. We should be doing a whole lot more that we're not now doing, and so that's where the journalism comes in.

John Schwartz Great. Darryl, you've started this beat on climate equity issues at *The Post* and you've been working on it. You've also done great reporting on how historically the climate movement has been so overwhelmingly white. How do we move forward and cover the people who are being hit hardest, and, as a subset of that, how do we do it in a way that shows them as a people, as opposed to victims? Because there's a lot of just misery porn out there.

Darryl Fears The way to move forward is we have to look at how money is distributed between these groups. So environmental justice organizations... I'll just start from when I

started covering climate. Of course, I visited a lot of NGOs, and I went to their conferences and I was struck by the fact that I was the only Black person in the room — in many cases the only person of color in the room. I wondered how this could be. I just knew that there were more black people, especially, interested in the environment, and certainly people of color interested in the environment. So I started to pursue stories along those lines, and what I found ultimately is that philanthropists really favored white-led organizations that were focusing on polar bears and seals and wolves and stuff like that. Black people who did venture into the environmental space were having a lot of trouble with the organizers of those organizations. Meanwhile, environmental justice groups were completely underfunded, just completely anemic in their funding; so poorly funded that they couldn't afford CFOs, and if you don't have a CFO or when you don't have some type of finance officer, then philanthropists use that as a reason to not fund you. So that was very interesting. So I think that to move forward to sort of balance this out, you have to tell the story of the history of how this happened, and you have to tell that story truthfully as elegantly as you can so that people can recognize themselves in your coverage and understand that you are absolutely trying to tell their story so they can engage with you with you more about your story.

John Schwartz Manuela, the car upholstery story was so important to me because first of all, it introduced me to the term cattle laundering, which is one of the great phrases of our age — hiding the origins of that of the cattle that are being taken from deforested lands and letting companies that have made pledges of doing things right sort of slide by. But it also did the thing that we've been talking about, which is making climate change not something far away and in the future, but very personal. You are destroying the Amazon; the climate change is under your butt in your Escalade. So there's a personal responsibility for climate change there in the things that we use in our daily lives. It wasn't always okay for me to say under your butt, but is that OK? Ok, so. That story was also something of an adventure. You talk about the databases and the bills and all that, but you took some risks, and could you talk about those a little bit?

Manuela Andreoni Yeah. I think reporting in the Amazon, and in a lot of forests, is very complicated because of the dangers to ourselves and to our sources. These are often lawless places. We have to remember that last year Dom Phillips and Bruno Pereira were murdered because of what they were doing. We try to be very careful about that, and really assess the risks and really talked through our stories with our sources so they understand what they're getting into when they're talking to us and make sure that that's what they want to do. So for that story, we had to follow a truck with illegal cattle — cattle raised in illegally deforested land — to a major slaughterhouse. That was quite something like... We were actually invited to see this guy who illegally deforested like hundreds of acres of forest to sell cattle to a major slaughterhouse. I remember when I realized what was happening, I hid behind the car and was like, did the photographers like photograph his face? Because I just, I wanted to communicate what we were seeing there without making him realize what was happening. Of course, I did tell that we're investigating the supply chain where he was. These people are so used to the lawlessness that they don't really often care about talking about how they defraud documents to sell cattle to major companies. So, we followed the truck through the night, and I had a drink and had to stay like in front of a slaughterhouse waiting for the truck to go in and then for the leather guys to come out. We were threatened when the farmer realized that maybe that was bad for him; he said, "Oh, maybe you may have trouble here." So we packed our things and quickly left. But I was most concerned about our driver who lives there. I told him that he should stay in the car and pretend that he doesn't really didn't really know what we were doing because we leave and so it's much safer for us to do these things, which really

increases our responsibility to do it. Because a lot of the time local people can't because they'll suffer the consequences in their lives. So, yeah.

John Schwartz That's part of the importance of the Pulitzer Center's funding of the Rainforest Investigations Network and the Rainforest Journalism Fund is all of that. It's about getting people to do that.

Manuela Andreoni Yeah, absolutely. Like Vernon said, I think collaboration is the future. It is something that we should invest a lot more in like the global quality of what we're seeing really takes local knowledge and global knowledge to come together. The air strip story as well, I partnered with another Brazilian reporter for that. I think we should be doing more of that because we don't know everything. Local journalists also need our protection, they need to be associated with big names, and that kind of helps protect what they're doing and bring legitimacy to the work that they deserve.

John Schwartz Absolutely. So here's a question for everybody to answer, just real quickly let's solve this problem, which is what can we do about disinformation? It's hard to tell the truth when there are people who are paid to undermine it. So I always tell my students that climate coverage has led the way on this. That you can't both sides, whether the climate is changing, and you can't really both sides whether humans are generating the CO2 that's pushing the process. At the *NYT* no editor told us to go to the Heartland Institute and get a comment that really climate change isn't happening. We were told to absolutely cover any legitimate conflict, like what's the role of natural gas and in the ongoing grid, what's the role of nuclear. There are many sides to those questions, but we got past the questions that a lot of political reporting is still caught up in. So what can journalism do? I'm asking you, Michael, also to do that, but what can journalism do to address this and what can other parts of the newsroom learn from what we're doing?

Michael Webber So I'll say as an engineer that I think we have a crisis in critical thinking in the United States, which is because we don't have enough liberal arts education. I think that is fundamentally the problem, and I'm an engineer through and through, I love STEM. I was raised here. My father was a professor of chemistry here at UT, so I grew up on campus. We are a STEM family. There has been a focus on STEM education essentially since World War II, but even more so the last few decades. So the liberal arts departments on campus are not growing, stagnating and shrinking, and the STEM parts of campuses are growing. So we have a lot of analytical thinkers now, but we don't have as many critical thinkers. I think this is a real problem. Critical thinking where you distinguish fact from fiction. Analytical thinking is where you figure out what your equations use to solve a problem, but the critical thinker obviously figures out which problem to solve; I think we need both. So there's like a push from STEM to STEAM, you add the A for liberal arts or maybe even fine arts for creative thinking. I would say as an engineer, we need more critical thinkers, and we need engineers to think critically. We don't teach that for the most part, or the students who are in engineering place out of it and don't take the classes. So there might be nothing you can do on your side. The problem might not be on your side, it might be in the readership. I'll sort of think back fondly, I was getting my PhD at Stanford in the nineties when the internet came to life, and we're like, "Oh, the internet is coming to life. We're going to have access to all the information in the world. We're going to be smarter." And that didn't help. There was just more information. We lost our ability to sort or filter appropriately. And we also, I would say, went from broadcasting to narrowcasting, where instead of having three or four channels ahead, a trusted source information, we now can slice and dice whatever you want to reinforce it. So I think it's really not a

journalism problem, so to speak. I don't think the problem is from you. I think it's on the readership side and it's more systemic, frankly.

Manuela Andreoni I just wanted to say that it's really hard. Like when we were in the Bolsonaro administration it was really hard to represent the government side without actually giving a platform to lies. I think we need to get better at giving them the right to defend themselves, but in the story challenging what they're saying. We can't stop at the quote. We can quote them and then really just tell the truth right next to it. It's a challenge to find the best way to do that, And we're still learning. But yeah.

Darryl Fears In my experience for a long time at *The Washington Post*, when I started covering climate you couldn't say that some event was connected to climate change, you just had to report it out. What happened was that the science got bolder, the scientists got bolder, and they started connecting heat events and other events to climate change. You mentioned Bolsonaro... when Donald Trump started to deny the science, we could just rely on his own scientists and the federal government to contradict what he was saying. We can just pull their reports and say, yeah, your scientists are saying this and you're saying that, and you don't look too good. So you don't have to take any bold steps because the scientists are doing it for you.

John Schwartz Vernon were you going to say something or should we...

Vernon Loeb I mean, I think the solution to climate change is collective. Bill McKibben or somebody or one of the climate activists I really admire said... Someone asked him, "What's the most important thing a person can do to solve the climate crisis?" And he said, "Vote." I think that's really true. It begins with political systems that are enlightened in taking the kinds of action that need to be taken to solve this crisis. So for us it's accountability reporting it, and it's investigative reporting. It's finding the truth, explaining to people how climate is affecting their lives, and who's responsible.

Manuela Andreoni Yeah. I just want to say also that there's a lot of like really tough science involved, like climate change is really hard to understand. There's really a lot of bad science out there as well that gets reported sometimes. We need to be really careful about that. A lot of misinformation actually starts with a really bad paper that someone picked up and covered. At the newsletter, I think we try to do that a lot is just like really take the time to break it down and explain it in really simple terms.

John Schwartz And learn the facts. I mean what we don't want with climate change is the coffee science problem; where this study says coffee's bad for you and this study says coffee is good for you, and you end up with people thinking, well, the scientists don't know anything. In fact, the scientists know a lot. The journalist's role is to find where the consensus is and still report on the latest science, in context.

Michael Webber One more comment, if I may. The presumption of the science as a starting point would probably help a lot, and I feel like I've been watching climate change coverage for decades and a lot of it is, do you believe it or not? I feel like we need to move past that and instead, the question needs to be: What is your plan to deal with the climate crisis? Like let's accept that there's a climate crisis and then ask about your plan rather than do you believe there's a climate crisis; That's kind of a free pass for disinformation. Same thing with gun violence. What's your plan to solve gun violence? Let's not argue about whether gun violence is real. So I think starting with the science and accepting that rather than giving a platform to deny it was probably a better spot.

John Schwartz Yeah, at *The Times* we were talking in 2016 about, OK, so it looks like Hillary Clinton is going to win, we can stop talking about whether it's climate change is real. We can start talking about solutions, what people are doing, how government is moving forward. Then we end up spending four years debunking again because things happened.

Okay. We have questions from the audience. People should come up if they want to talk. I've got one from online that I can start with, which is: reports and surveys show that people do not want to read the news because most of it is bad news and confuses and overwhelms them. Most climate change news isn't good news either, but the solutions journalism approach is trying to tell people's efforts to solve social problems. Do you think that solutions journalism can be an ally to capture the attention of audiences and get them interested in reading news about climate change? That's open to anyone who wants to.

Michael Webber I've no idea, frankly, but I would say it seems like negative news sells better than positive news. However, solutions-oriented thinking moves the economy faster. If people figure out, "Oh, I can make money doing that. OK, I'll do it." Then you get action. That's the Texas story, right? So solutions-oriented journalism might not change minds or get the clicks, but it might change actions. So I'm a believer in it.

Manuela Andreoni Our readers actually ask a lot. Like in the newsletter, they always ask, "Please tell us the good news. Please tell us what we can do." It's hard as well because we can't say, "Yes, of course you can singlehandedly solve this." Somini always says... Somini Sengupta, my colleague who writes the newsletter with me, always says that we have to be careful talking about solutions because we can't really solve it. You can adapt. You can mitigate. But we can be very clear about what's happening and how people can engage, and I think we don't do that enough. We don't take as much reporting effort to report the solutions as we do the problems. We often feel like we have to take them apart and show why they work and why they can scale with as much reporting effort as we do.

John Schwartz And solutions journalism is not about fixing the problem. It's about what people are doing to try to fix the problem, which is very complicated. So it's not about something with a halo over it. It's not about something that's perfect. It's about what people are doing. You had a question?

Keaton Peters Yeah. My name is Keaton Peters. I'm a master's student here at UT. I've mostly covered energy and climate. Had a very similar question to the one online, so I'll just kind of reframe it here. Do you think that there are times when the coverage of climate should scare people? And how do you balance times when you need to just be really clear-eyed about this is what's happening with times when you might want to creatively present solutions?

Vernon Loeb Yes, I strongly believe there are times when climate coverage should scare people and scare the hell out of people. I really feel like there's sort of this false dichotomy between doomerism and solutions journalism. It's a really complex question, and in every story that scares people, there are solutions. Getting scared to some extent is a solution. I agree, if people are depressed and freaked out, it's hard to act and it's hard to get out of bed in the morning. Yeah, I think that's a real problem, but I also think it's a real problem if we start sort of dumbing down climate coverage to solutions. Going for a solution involves having a very complex and nuanced understanding of the threat and of the issue and then what to do about it. So I don't know if that answers your question, but I really do believe that the truth is scary on climate change and we have to deal at the level of the truth.

John Schwartz I would also say that fear is part of this coverage, but if you're framing it to make people scared... I'm just not a big fan of framing. I'm a big fan of telling the truth.

Vernon Loeb The science itself can be scary. The engineering itself can be amazingly positive. And it's all part of this very kind of rich, broad, deep story.

Michael Webber I wonder if I can comment on this as well. I always have some say that's the benefit of being a professor; we talk whether we know we're talking about, we just go for it. So my anecdotal observation is that people under 30 are already scared. Frankly, they don't need to be scared, they're already motivated for action. Like 80% or 90% of younger people are ready to take action. This reminds me a little bit of Winston Churchill when he said, "You can always count on Americans to do the right thing, but only after they've exhausted every other possible option." He made that reference to our late entry to World War I and World War II; It took us a long time to decide to take action, but eventually we got scared enough that there is enough on the line with our security or that our prosperity was at risk, so we took action. We did it with World War I and World War II and the Cold War, and now we're doing it with climate change. So it's very typical of Americans to arrive late at the problem, but then they arrive late, throw a lot of money at it and move quickly. I think that's happening with climate change. In the last like nine months, a lot has happened on that. But fear is a big part of that. We weren't afraid enough of World War II that eventually we got scared enough like, wait, our national security is on the line and our opportunities for prosperity on the line. Then it became less of a cost-benefit analysis — before it was like well it's expensive to get involved in European land war, that kind of thing. What are the benefits for us? — and moved from a cost-benefit equation to one where we must win. We must win no matter what it costs. The Cold War we didn't do a calculation on cost-benefit, eventually we said we must win. I think we're starting to see that on climate change because of people who are your age and younger. Students are saying we must win, it doesn't matter what it costs. I think the fear is already there, frankly, for the rising generation, maybe not for the entrenched power right now.

John Schwartz You had a question?

Johanna Gerada Hello, I'm Johanna Gerada from Brazil. I'm a science and environmental journalist over there and I'd like to ask you a question about how important it is to have this interdisciplinary look to the situation. The issue started being covered by science desk or environmental desks, and we realized that it's a more wide issue — it has economic impacts and it has political impacts and habitational impacts. So I was wondering if you think this can like help to try to reach more readers instead of just the ones that usually read these kinds of stories?

Vernon Loeb I think Bill McKibben said recently that for the rest of our lifetimes, every single major story be it cultural, political, economic, artistic, medical will play out on the stage of climate. Which is the amazing thing about climate change, it touches everything — your health, your well-being, your property value, your nation's economy, and so on. So, yes, an interdisciplinary approach is critical.

Michael Webber Absolutely. The solutions require many disciplines to get us all in. There's a saying that no one's more depressed than atmospheric scientists except for marine scientists. No one's more depressed than them except for the fresh water scientists... So it starts to touch every discipline, and everyone has to be involved in the solution.

John Schwartz Well. Manuel, Darryl, Michael, and Vernon, I cannot thank you enough for making your way here. Short commute for you. But for being here today and for sharing the word with these folks on a Saturday morning. Thank all of y'all. Thank you, Mallery, for the introduction, and thank you all for being here with us.