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The Climate Conversation: Media's Impact on Civic Action

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Bart Ziegler: Scientists are drawing an ever clearer connection between climate change and extreme weather, which threatens global human health and safety. We depend on climate for our very existence from the food we grow to the air we breathe, to the storms we weather. Changes to the balance of our climate propose an existential threat to our way of life and even possibly a literal threat leading to mass migration and suffering. The sooner we address this climate change, the sooner we'll have less suffering. Welcome to everyone tuning in to join the Samuel Lawrence Foundation's First Friday Series webinar, titled The Climate Conversation: Media's Impact on Civic Action. My name is Bart Ziegler, the President of the Samuel Lawrence Foundation. [00:09:00] We collaborate through science, art and education to find solutions to our planet's greatest challenges, from nuclear safety to climate change. And climate change is exactly what we're here to talk about today. I'll turn this over to our moderator from Brooklyn Story Lab, Lance Gould, to introduce this talk and our wonderful panel of speakers. Lance.

Lance Gould: [00:09:29] Thank you so much, Bart. Today we are pleased to welcome three esteemed meteorologists and scientists for a discussion about our changing climate and what the role of climate reporters and meteorologists should be in conveying information about climate change to the public. Chris Gloninger has had a long and successful career as a meteorologist reporting on weather and climate change. He now works as a climate and risk communication senior scientist at Woods Hole Group. Chris, welcome and thank you for joining us.

Chris Gloninger: [00:09:57] Thank you so much for having me.

Lance Gould: [00:09:58] Joining Chris is Lauren Casey, a meteorologist for the Climate Matters program at Climate Central who specializes in communicating the connections between climate change and extreme weather events. She has worked across the country from Georgia to Philadelphia and beyond as a trusted broadcast meteorologist. Lauren, thank you for being here today.

Lauren Casey: [00:10:20] Thank you for having me. Great to be here.

Lance Gould: [00:10:23] Excellent. And we're also delighted to have John Morales with us. John was literally in the heart of the storm this week as the longest tenured broadcast meteorologist in South Florida. John reports on storms like Hurricane Idalia guiding the region through extreme weather events. John, welcome.

John Morales: [00:10:39] It's an honor to be here. Thanks.

Lance Gould: [00:10:42] Excellent. And thank you all for joining us in this live stream. Before we jump into this discussion, here are a couple of brief housekeeping items. The chat will be open for the duration of the briefing. So click on the chat icon on your Zoom toolbar to open your chat box for questions. We'll be using the Q&A box. So [00:11:00] click on the Q&A icon on your Zoom menu to submit your questions. You can submit questions at any time, and we'll do our best to answer as many as we can toward the end of the session. We are recording this webinar and we will share the video and transcript on the Samuel Lawrence Foundation website in the following days. Now let's talk about the climate conversation media's impact on civic action. As Bart noted so beautifully in the opening of the program, scientists are drawing ever clearer connections between climate change and extreme weather threatening human health and safety. Humanity is dependent on a livable climate for our existence, for food, for shelter, breathable air. Changes to the balance of our climate propose an existential threat to our way of life. But in this politicized environment, that existential threat can extend to even talking about climate change, one need go no further than to ask our first panelist, Chris Gloninger, who received death threats from his reports on climate when he was a meteorologist for an Iowa TV station. Chris, thanks so much [00:12:00] for being here. Can you tell us a little bit about your journey, how you got started as a meteorologist and how you landed in Iowa and how you ended up where you are today?

Chris Gloninger: [00:12:10] So my journey started actually back in second grade. Like many meteorologists, there's been that crystal clear moment where our future almost comes into focus. And typically it's because of a weather event. And for me, it was Hurricane Bob back in the early 90s which hit my hometown, and I had this fascination with the weather, which lasted through middle school, high school. And then I went to school for meteorology in college, got my undergraduate degree in atmospheric and climate science, and then began my journey into broadcast meteorology. When I started covering climate change, I'd covered numerous major weather events. After Hurricane Bob, we entered into this lull of activity. And then while I was in Albany, New York, I covered Hurricane Irene. And then the next year, Hurricane [00:13:00] Sandy downstate in New York City. And then I started to do some digging on my own to see the connections between what was happening with our severe weather and the connections with climate change and how carbon emissions are making things more extreme. Then I went to Boston, where I started the country's first weekly series on climate change, and we provided coverage on everything from solutions to mitigation, which is cutting the carbon emissions through renewable energy to adaptation, finding ways that we can kind of coexist with our changing climate. And then we went on to cover other events while I was there in Boston and was on the ground for some of the biggest hurricanes during the 2016 to 2020 Realm, where we again had tremendous hurricane activity across parts of the Gulf Coast and East Coast. And that's when I launched into Iowa to talk about climate change in a part of the country where there [00:14:00] wasn't a lot of connecting the dots between extreme weather and climate change. And unfortunately, it was met with some pushback and last year, a death threat. And at that point, it just didn't feel safe being out there. And I came to the Woods Hole Group, where I'm a Senior Scientist working on climate adaptation projects for communities across the country.

Lance Gould: [00:14:24] Well, first of all, what an amazing journey. And it's ironic because people always say that you're struck by a lightning bolt when you first get interested in something. And that's a great weather analogy. But then to see you end up in Iowa and have to deal with such terrible circumstances. We're going to talk a little bit more about that in the program. But I'm so sorry you had to deal with it. I'm so glad you're in a safe spot now.

Chris Gloninger: [00:14:50] Thanks.

Lance Gould: [00:14:51] Lauren, you had a very successful position as an on air weather person in the big TV market in Philadelphia, among many others. And now you're a meteorologist with Climate Central's [00:15:00] Climate Matters Initiative, which provides climate related resources to more than 3000 TV meteorologists and journalists across the US. What was that experience like for you, being the weather visionary for a major metropolitan area, and what were the demands of the job in a city like that?

Lauren Casey: [00:15:16] That's a great question. I like the term weather visionary. I'll take that. Um, you know, the demands of the job. Well, in one part, it's not demanding because I'm passionate about whether I have, as Chris mentioned, ever since I was a young child, I was always fascinated by thunderstorms and hurricanes. And even today, like yesterday, I was texting people like the cirrus clouds in the sky. Those are from the outer bands of Hurricane Idalia. So I'm just as passionate today as I was when I was a wee child. So it's exciting to get up on TV in front of an audience and kind of share that passion for weather with them both when the weather is beautiful and when the weather is very serious. [00:16:00] So I'd say the most demanding part of the job actually today is the two year anniversary of the remnants of Hurricane Ida coming through the Delaware Valley, where we had a number of tornadoes, including an EF three tornado in New Jersey. And I believe we had a particularly dangerous situation, tornado warning, which we do not get in our area. And I remember being on air and kind of thinking about like, this is really bad, like this is really going to affect people.

Lauren Casey: [00:16:30] And also when some warnings are coming out, texting some of my relatives and loved ones and saying this is really serious all at the same time while trying to track this tornado and give our audience the most apt and useful information they could to protect themselves because this was a real life, real world scenario with very dangerous weather on the ground. But that said, at times it can be really fun. And talking about, you know, atmospheric optical phenomenon and how rainbows [00:17:00] form. So all of that can be really fun. But another challenge would probably be that the schedule can be a little bit tricky, working holidays and working weekends. I worked weekends for a long time, but you know, so it has its pros and cons but ultimately honored and I interned in college at the station here in Philadelphia with the legendary Hurricane Schwartz, who was still my mentor. I call him my weather dad. So to come back and work in the same city that I interned in in college was just a real, real treat and a real highlight of my career.

Lance Gould: [00:17:34] That's amazing. And you're not working this weekend? This holiday weekend? So you finally get a holiday weekend off!

Lauren Casey: [00:17:41] I am not working this weekend!

Lance Gould: [00:17:44] But just going back to a point that you made about getting alerts for things that never happened, and this is for all three of you. But are we? I know we're going to be seeing more of that in the future. That's something that we all have to really adjust to, isn't it, that [00:18:00] the kinds of warnings, the kinds of the kinds of weather that we have not previously experienced because of climate change, it is going to bring new, new new scenarios and new unfortunate scenarios to to new areas.

John Morales: [00:18:14] Actually, that just happened. That just happened with hurricane warnings being issued in inland locations of Georgia, counties that had never, ever had hurricane wind warnings. Had those happened because of Idalia. And that's because there has been very recent research within the past couple of years that has indicated that in this new era of hyper intense hurricanes, we're seeing the damage extend much further inland, away from the coast than what used to be observed. So with that in mind, the National Weather Service offices and the National Hurricane Center opted to go ahead and extend those hurricane [00:19:00] warnings well beyond the coastal counties. So that was definitely unusual. And I know some emergency managers in southeast Georgia went through a situation that they never faced before.

Lance Gould: [00:19:14] It's very scary. And John, we're so appreciative, so appreciative of you being here, especially this week, given what is happening in Florida right now weather wise. We also want to send our best to the people in Florida, Georgia, Cuba and others recovering in the destructive path of hurricane Hurricane Idalia this week. But, John, you served as an on air meteorologist in South Florida for so many years and you're still there. What did you learn about and what have you learned about climate by being in the eye of the storm, as it were, in the Florida in the Florida area?

John Morales: [00:19:44] Yeah I mean, you might imagine Miami is considered one of, if not the most vulnerable city in terms of assets at risk on the planet, in terms of what climate change is expected to bring. And therefore, if [00:20:00] you ask me what the general response is from an audience that has been hearing from me probably for a couple of decades now about the threat of climate change generally, it's a very positive response. As I you know, this is totally the opposite of what Chris went through in Iowa. Instead, when I run into people, you know, out and about, people are either commenting or thanking me for my hurricane acumen, if you will, or thanking me for being the one broadcast meteorologist in South Florida who has been talking about this for a long time. And they say, you know, we don't understand why others are not doing it. We're so thankful that you keep bringing that up because we live here in a place that is under threat from the changing climate. And we need to hear more and we need to hear about it more often. So generally, the response here is a positive one. If [00:21:00] anything, what's been hardest to manage has been newsroom managers' expectations regarding reporting on the climate crisis. Now, this has evolved, thankfully, but there was a time, you know, a more than half of the last 20 years in which I've been involved with this, in which I received a lot of pressure to insert false equivalency or false balance into any type of reporting that I did on the climate crisis.

[00:21:34] What does that mean for the non journalists that are watching out there? It means, you know, trying to find the other side of the story, which is something that journalists are trained to do. You know, when they're out on a story, if they're trying to uncover some corruption, just to give you an example, you know, they try to find somebody that, you know, that's defending themselves and saying, no, you know, this did not happen. [00:22:00] Et cetera. Well, they try to apply the same to the scientific method, which does not work because, you know, the scientific scientific method through which processes yields the likely and eventually through iteration, the very likely and or factual circumstance of what we've been observing. Right. So so the journalistic method of doing things, which is finding the second side to a story doesn't quite work with science and that required quite a bit of management on my behalf over the years to try to avoid putting folks on from, you know, some of these think tanks that we know are compromised in terms of their attempts to confuse the American public in regards to global warming.

Right. And I'm not going to name names here necessarily, but they're out there. So, you know, I certainly found ways and I avoided doing that. But it was difficult. [00:23:00] And that's the biggest challenge I've had.

Lance Gould: [00:23:03] That's amazing and incredible insights from you. And it's something they should teach in journalism schools, which is you can't take both sides of facts. If a fact exists, you can't, you can't look for the other alternative fact, you know.

John Morales: [00:23:17] Exactly. Gravity is gravity. Smoking causes cancer. That's it.

Lance Gould: [00:23:21] Right. You can't. Exactly. And this is a really good transition to what we were going to talk about next. As the negative impacts of a warming planet have become more overt, speaking the truth about climate change has become more important. After all, the more informed we are about a problem, the more empowered we become to do something about it. But still, some have tried to deny that extreme weather and climate change are an issue at all. How do you approach and John mentioned some of this already, but how do you approach conversations about climate change or extreme weather events in the midst of climate deniers? This is for all three of you. Chris, why don't we start with you?

Chris Gloninger: [00:23:58] You know, in Iowa, [00:24:00] it was known as a purple state for a long time until it took a hard right turn in 2016. And we reached a point where ideology held more weight than facts, data and science. I think that that is what we're competing with now. What's interesting is that in Iowa, unlike South Florida, unlike when I was in Boston, we didn't get King tide flooding. It may not be as visual as the climate impacts across the other part of the country, but I would argue that the stakes are just as high in Iowa as they are in other parts of the country because of agriculture, which is 11% of the GDP in Iowa. But there's also a positive side of it as well, and that is the renewable energy aspect of the equation. And more than 60% of the grid in 2022 and now 2023 is powered by wind energy, and that is also supplemental income for farmers, usually getting 5 to \$10,000 per turbine on their land, which is quite remarkable. Yet I [00:25:00] was receiving pushback largely because of that ideology over facts, data and science, which is unfortunate and it's really tough to compete with, but when you start breaking down, for example, there's a severe weather outbreak that the forecast models weren't handling too well. We had this early season severe weather event and there was a gentleman that went back and forth with who called climate change a hoax. But when I kind of talked him off that ledge and we had conversations, he said, why are you the only one going with this high end severe weather potential for early March? No one else is talking about it.

Chris Gloninger: [00:25:37] I was looking at the Gulf of Mexico, which was at near-historic temperatures and what the models weren't doing effectively. They weren't taking the system and injecting moisture into it because of that warm Gulf of Mexico. It wasn't really taking into account that excess or added fuel. And sure enough, the models, when we got within 24 hours of the event, hooked on to that solution and [00:26:00] we had a very early season, major severe weather outbreak across the area and that was the turning point for him. And I turned a skeptic into a believer, even though I hate using that term, because you don't believe in something that is, you know, fact facts or facts. But you deal with that pushback when you have an area where after 2016, they quite frankly, feel emboldened and entitled to unleash hate and whatever they feel. And they believe that their feelings and their ideology weigh more than facts, science and data, as I mentioned. So that is that tug of war that we're dealing with, especially

in more conservative parts of the country. And argued to John's point, when you're seeing it every day, maybe some fields go brown when there's not a lot of rain and you're in a drought in Iowa. But when you're not dealing with inundation at high tide on a sunny day. I can understand why a lot less people believe in science in these parts of the country, not where I [00:27:00] am now, but where I was in Iowa.

Lance Gould: [00:27:03] Well, just to piggyback on that thought for a moment. Just. Well, we're going to come back to Chris in a second. But Lauren, do you have any thoughts on that?

Lauren Casey: [00:27:17] Yeah, absolutely. I think when you're talking to people about climate change, you really need to meet them where they are and bring them along with you. And you have to come to the conversation without a lot of judgment and try to keep it positive. So when you meet people where they are, that really enhances their ability to assimilate that information and to learn and to kind of move them along in accepting the science of climate change. And also a good way to bring them along is tightly tying it into human health impacts. I mean, the climate crisis is a human health crisis as well. So talking about those health impacts, heat related illnesses, you know, and especially even less [00:28:00] severe ones like the prolonging of the allergy season. We put out a climate matters bulletin on the allergy season, the lengthening allergy season because of climate change and global warming. And it got so much feedback, so much media pickup, because people were so interested because it's something that impacts our daily lives, even if it's a nuisance of just sneezing or more serious for people who have asthma. And then, of course, the extreme heat is even more serious than that, but just really kind of conveying how it impacts people's everyday lives, the lives of their family members, the lives of their neighbors and in their communities. And I think when you're talking about climate change, you do need to know your audience, as Chris was kind of talking about. You know, you need to know where they are at and frame your language accordingly. I think it's really important also to make it local, talk about the impacts that are occurring in their communities and also talk about shared values. What is important to those communities, [00:29:00] to those people within those communities, and talk about how climate change is impacting things that they really appreciate the most in life.

Lance Gould: [00:29:09] That's such a good point, Lauren. And when you talk about local values and local perspectives, I think of Texas, which during the heat crisis of this summer with the heat domes and constant triple digit temperatures, if it weren't for the renewable energy of the wind energy that was powering the grid, they would have gone. They would have been in even more hot water, as it were. But there's not, it doesn't seem to be a recognition in the local populace, and perhaps it's because of the local news organizations that feed them. That doesn't seem to be recognition that that is the case, that that renewable energy was really saving them. And Chris, back to back to you for a second. When we're talking about the Iowa population and and and and noting what an agricultural [00:30:00] populace it is, did you get the sense that there were people who are working in agriculture who have recognition of climate change? Because because they see it more than more than more than many of us did you get the sense that they were either silently not saying anything about it, but understanding it? Or what is your sense of what the climate crisis impact is in the farm community, the agriculture community?

Chris Gloninger: [00:30:25] I think it's broader than that, because what I saw after I left, while I wasn't receiving a lot of positive feedback, when I left, I received hundreds of emails, dozens of handwritten letters, appreciative of the work I was doing. And it's very clear that if you look at George Mason University, the Yale Program on Climate Change Communication, if you look at their numbers, only 20%

or less are either dismissive or deny climate change. Now, that's a very small fraction, and it really doesn't follow political lines, but those are the people that speak out against [00:31:00] our coverage of climate change. And I had a meteorologist, Jim Gandy, one of the first meteorologists to make the connections between climate change and extreme weather on TV in the Carolinas. Nonetheless, he told me, Chris, how often do you go to a restaurant, enjoy the meal and when you're done, you go on and provide a Yelp review or go into Google and give it a Google review. Admittedly not very often, but if you're on vacation and the airline loses your bag or your flight was canceled or delayed, how likely are you to complain? I'm guilty of that as well. Of course, I air my concerns and when I'm upset, I let them know. It's very similar. So you're looking at the small fraction. And unfortunately, I think with our news management, they listen to that small fraction and ask me to dial it back and tone it down after their intentions were good by bringing me on to talk about climate change. So going back to your point of farmers and agriculture, yes, a lot were seeing changes not talking to us at [00:32:00] the station about it or writing about it, but they were seeing changes in their yields, changes in growing seasons, starting earlier, lasting longer. And then invasive species as well that they were having to contend with in recent years.

Lance Gould: [00:32:15] It's so fascinating. John similarly, having worked in Florida and with and with ties to the Caribbean that you have. Did you get a sense from your viewership and the communities that you serve that people were cognizant of the threats and negative impacts of climate change, or was there more of a head in the sand denial about it?

John Morales: [00:32:33] No, As I hinted at before, I think people here are aware of, you know, the long term existential threat of sea level rise. That's particularly the case in the Florida Keys. It spills into the megalopolis here of Miami, Fort Lauderdale, and then the further north you go in Florida, it's not that huge of an issue for the inland communities. It is still for some of the coastal cities like Tampa, [00:33:00] which does have a sea level rise issue to deal with as well. I can tell you that in the case of the Caribbean, there's a lot of reconnaissance of the of the changes in particular in regards to the recent but very, very strong hurricanes that have impacted those islands, you know, from Maria hitting Dominica and then on to Puerto Rico to Irma, flattening Barbuda right next to Antigua, and then as well, flattened in parts of the British Virgin Islands. There is a concern that indeed, you know, how many more of these hyper intense Cat four and Cat five hurricanes are going to head our way. And they recognize and they may even know about the peer reviewed science that does indeed indicate that there is a greater proportion of tropical cyclones around the planet that are reaching Category four and five intensity. And that, of course, is tied to the very warm sea surface [00:34:00] temperatures very, very recently. I'll tell you as well that because we've just lived through the hottest July in Earth's history, recorded history and that spilled over into south Florida, spilled over into the Caribbean as well, which had had an extremely hot June.

John Morales: [00:34:20] I mean, you summed this all up. And generally for many of these spots, it's going to end up being the hottest summer that anyone's ever lived through. Well, they're very cognizant of these very hot temperatures. The records were setting day in and day out, whether it's air temperature or the combination of air temperature with humidity, where that heat index value is, is setting records and reaching very dangerous levels as well, levels at which people start to succumb to heat exhaustion and potentially heat stroke, like what's happened right here in the Miami metro area, where, you know, we've had agricultural workers die this [00:35:00] very summer due to heat stroke. So

so, yeah, I mean, I think people are aware, um, and generally, like Chris said, the percentage of dismissive is 11. The percentage of doubtfuls might be 10 or 11 as well. Generally speaking, across the country, 3 in 4 Americans accept the science of climate change. I'm avoiding that word belief because it's you know, you don't believe in science, right? But three out of four Americans accept the science of climate change and more than half of them. Uh, also accept that this is anthropogenic, that it's manmade. So there is a perception out there that this subject matter should never be brought up because it's like talking religion and politics at the Thanksgiving table. But in reality, in reality, most people [00:36:00] agree that what we're seeing is being caused by manmade climate change. And it's not as controversial a subject as you might imagine, and it ought to be talked about more.

Lance Gould: [00:36:12] It's such it's such a great point. And while we're approaching a political season, without getting too political here, there seems to be on one side of the political aisle a distaste for or a refusal to accept what you just said, that climate change is either real or manmade. And guess that's what for those of us not in Florida, that guess that's what confuses us about the Florida populace in terms of the political leanings that they may have.

John Morales: [00:36:46] But I mean, I can certainly comment a lot about that. I can tell you that Florida, you know, it's almost county by county by county in terms of people's worldviews. And north of Interstate four, which [00:37:00] bisects the peninsula from Tampa to Daytona, you know, you're going to find perhaps more of the dismissive and doubtfuls that you'll find in areas like Miami and Broward County, which is where Fort Lauderdale is and other locations. So there's definitely a dichotomy in views. I know it's polarizing, but the truth is, deep down inside, when you ask people and you do these surveys and this is again through George Mason and the Yale Climate Communications Program, and they do this, by the way, they've been doing this for a decade or more every single year they do these surveys. So we know what those numbers are, not just in a static snapshot, but we know it through an entire decade or so. And the number of alarmed and concerned about the climate crisis continues to grow, while [00:38:00] the number of dismissives and doubtfuls either is steady or slightly diminishing over time. They're pretty stubborn, though it's kind of difficult to get them off their worldview. The tribal view.

Lance Gould: [00:38:12] Well. Well, we've talked extensively about the Florida audience and the Iowa audience. How about the Philly audience? The Philly market is not known for being soft. This is the town whose sports fan base booed Santa Claus, famously, Lauren working with the Philly audience. What was it like trying to communicate this issue with the audience in Philly?

Lauren Casey: [00:38:33] Yeah, you know, we're a tough crowd, but I'm originally from the area, so maybe that's why they accepted me a little bit more. But you kind of have to go in with no fear, and just [00:38:45] present the information. But overall, you know, talking about climate change in Philly had a really great experience. Of course, as Chris and John were both talking about, there are the group of dismissives of about 10% and unfortunately they just happen to be the loudest [00:39:00] crowd. Those are the ones that are going to get online and make an obnoxious comment on your social media. But for the most part, when I encounter people on the street, they say, thank you for talking about climate change, you know, wanted to learn more about this and or you taught me something. So the reception was really great. I was in Philadelphia for seven years and so no snowballs were thrown at me, thankfully. But you can see even there is an appetite in the audience really all across the country. And that can be found in the numbers for our Climate Matters program, which was launched in 2012. So we provide

research, content, data, graphics to journalists and broadcast meteorologists and the hopes that they will then go on and disseminate that to their viewers and viewership users readers. So back in 2012, we had 55 television hits pick up of our material, and as of 2021, we had over 5600. So the appetite [00:40:00] is there. Same with media hits if you count in print, TV, social media, three, ten, and 2012 as of 2020, one over 15,500. So people want this information. They're interested in it. And certainly, you know, TV stations, having worked in TV for a long time, know management's not going to put anything on air that the viewers aren't interested in, and that's not going to boost their ratings. So it's clear that people want this type of information. They want to learn about climate science and how it's impacting their communities.

Lance Gould: [00:40:31] Well, on that note, Lauren, what do you think the role of the media in informing the public on new sciences and driving conversations about climate change should be?

Lauren Casey: [00:40:41] That's a great question. And, you know, really, we need to give people the information. That's the role of the media, Right. We need to tell them the truth about what's going on, being honest about what we know and what we don't know. So really kind of bringing it down to their level. We talked a little bit at the top of the webinar about [00:41:00] complex scientific issues and making it simple. You know, when I started out in meteorology many years ago as a broadcast meteorologist in Macon, Georgia, you know, I had my undergrad degree and was very excited about all these fancy terms that I knew vorticity and things like this vertical velocity, you know, Coriolis force. And you get up there and you want to say these terms to kind of like prove your credibility. But that helps nobody. You know, it's your job as a meteorologist or a journalist, a scientist to take that more complex language and break it down for people to understand so they can digest that and they can understand that better. And when they have the information, they can go on to make better decisions. So putting it really in simple language, plain language is a big responsibility for journalists and meteorologists and scientists.

Lance Gould: [00:41:54] And John, how about you? What do you think of the role that the media should have in informing the public? And would you ever use [00:42:00] the word vorticity in your broadcast?

John Morales: [00:42:04] Well, actually, it wouldn't be surprising if I have, just because when we do wall to wall hurricane coverage, which can go on for days, it means that my weather segments can be as long as 17, 18 minutes each. So I wouldn't be surprised if I brought it up. Listen. No, you know, back in 2007, Bob Ryan. Preeminent broadcast meteorologist. Now retired from WRC in Washington, D.C., the NBC station in Washington. Perhaps, I believe the only broadcaster to ever be president of the American Meteorological Society. And at the time, in 2007, I was commissioner on professional affairs for the American Meteorological Society. So he was the past president, [00:43:00] me as commissioner. We wrote an op ed that appeared in the Bulletin of the American Meteorological Society urging broadcast meteorologists around the country, the members of the AMS. And there's you know, out of the 14,000 or so members of AMS, there's about 2000 that are broadcast meteorologists urging them to present the state of the science of climate change, obviously in layman terms, but to present it and add it and provide that climate and their weather segments and divorce themselves from their own biases, political views, and just present that to to the audience, because we as leaders of the American Meteorological Society and with the support of the Council, felt that it was urgent to make sure that broadcast meteorologists were presenting this to audiences because of the looming threat. And listen, back in the

aughts, [00:44:00] we were just starting to see maybe some extreme weather events here and there, But it's nothing like what we're seeing today, where they're coming, you know, fast and furious. So. You know, that pretty much summarizes my view on this, which is, yes, the media has to play a role. Broadcast news has to play a role in providing people with the information that they need to to be able to realize, you know, what, what the state of the science is, which is, you know, this is serious.

John Morales: [00:44:33] It's us. Right. But at the same time, let let's also provide some hope. Right? Let's present some of the solutions that are out there. The solutions for this crisis are out there. You know, we're not going to stop it on a dime and make a 180 and be able to resolve everything in a matter of a year. No, you know, but we need to slow the rate at which we're warming, [00:45:00] the atmosphere and the planet. We need to slow that down because we're going to be in deep trouble if we continue down this path. So, yes, the media needs to play a role in educating the American public to make sure the American public then takes not just individual actions. All right. That's important, too. It's not about, you know, whether I can afford an electric car or not or whether I can put up solar panels in my house or not, or even if I'm composting in my backyard, it's not so much about that. It's about making sure that people are empowered through education, through facts, without throwing the textbook at them. Okay. Like Lawrence said, we need to meet people where they're at, meet people where they're at so they understand the threat. And then. These folks not just take individual action, but start to advocate for climate action. And that can take many forms from talking [00:46:00] to your neighbor could be just as simple as talking to your neighbor about it. You know, heat waves—what is going on? Mygoodness.

Lance Gould: [00:46:15] Yes.

John Morales: [00:46:17] This is making sure that we get leaders in place that are taking this crisis seriously. Could potentially be the game changer here, right? We need regional, state, national and international collaboration if we're going to get to where we need to go. It's not up to the individuals. It's not up to the corporations because they're not going to do it. This needs to be regulated and it needs to be at the national and international level. And that's where the vote is so important.

Lance Gould: [00:46:51] That's a great segway to the next question. But before I raise that next question, I just want to let the audience know that we'll be taking your questions very shortly. Just two more questions here [00:47:00] for the panel. Then we'll go to some audience questions. In the face of all the challenges the world is facing right now, from nuclear safety to the threat of climate change, the Samuel Lawrence Foundation always likes to think about hope in the midst of all the adversity, the good work that is being done by excellent reporters and scientists like yourselves, as well as what our listeners can do themselves to engage with these issues. What can people listening in do today? As John just mentioned, a couple of a couple of suggestions to improve their own climate literacy and better engage with science and the media. Let's turn to Chris for this, because John already gave us a couple of good suggestions there.

Chris Gloninger: [00:47:37] Yeah, to build on what John said is being part of the conversation. And in my new role, a large part of what I do is I work with communities to find ways to build resilience, become adaptable to the changing planet, find ways to mitigate some of the impacts or the sources of climate change. Right. By cutting those carbon levels. Those are all [00:48:00] critical steps. And people really

need to let their voices be heard in these conversations. The Inflation Reduction Act is the largest sum of money that's been devoted to climate action, which is terrific. Talk for another time is that it was poorly explained to the public and the PR campaign for the IRA was a complete and total bust. But the money is there and these projects now have the momentum to continue into the future. But people need to help dictate how these projects unfold. The priorities we need to make sure that all parts of the community are part of that conversation, especially environmental justice. Communities want an environment for these talks, these conversations. So that is what I'm building on from what John said. But voting, which is something else he said, is also critical. And when we, you know, go next November to the [00:49:00] to the polling place, you need to find somebody who's willing to take climate action seriously and make it a top priority.

Lance Gould: [00:49:09] Exactly. Lauren, do you have anything to add on this topic in terms of what good people can do?

Lauren Casey: [00:49:16] Yeah, just I think a big component of climate literacy is knowing credible sources. So knowing who to go to and as journalists and broadcast meteorologists, we should help that along and supply them with credible sites to go to, you know, go to NOAA, go to NASA, kind of helping people to distinguish between the misinformation and the true credible scientific information. And also reading up, I think, on solutions and new solutions. Not only does that enhance one's climate literacy, but I think it kind of combats climate fatigue or the doom and gloom associated with climate change. So just recently I was reading about Michigan [00:50:00] State University for their commuter lot. They have started covering parking spots with solar panels. Also in France, the French Senate just approved a bill that new and existing parking lots with more than 80 spaces have to be half covered with solar panels. So not only does it protect your car, keep it from the sun and the wind and the rain, but it's generating energy as well. And all of the land use controversy of, you know, acquiring farmland and converting that to solar, wind or excuse me, solar panel fields that kind of pushes that to the side. So we really need to increase solar in our urban areas and we're starting to move towards that. So there is a lot of positivity. There are many solutions, as John was saying, and we can read a lot about avocados every day.

Lance Gould: [00:50:49] Lauren, you just gave such a great example of the power of storytelling, because just giving those two little anecdotes about Michigan State and France just really it's it's exciting to hear about the solutions [00:51:00] that are out there and what people are doing. So thank you for sharing those. We're on the cusp of this is the last question before we open it up to the audience. We're on the cusp of the annual environmental season for September to December with key annual conferences such as Unga, which is UN General Assembly and Climate Week here in New York in September, and then the annual UN climate conference known as Cop in November, December, which will this year be in Dubai in a Petro state of all places. As we approach the end of 2023, we're also nearing the 2030 deadline to achieve the UN Sustainable Development Goals. And the IPCC report assessment has made it clear that we need to transition to 100% renewable energy. What do we need to focus on and achieve in this absolutely critical 15 week gauntlet between the start of Unga and the end of Cop? Which would be the focus of most conferences. Let me throw that one to John.

John Morales: [00:51:54] Well, I mean, listen, we have to be— I think there needs to be a [00:52:00] frank discussion. If you ask me what should be the number one priority, you know, we are not on track. You know, I don't want to. Let's not sugarcoat it, is what I'm trying to say. I don't care how many

commitments the different countries have pledged. You know, we are not slowing down the burning of fossil fuels fast enough. And I think, you know, an urgency, a sense of urgency. And I know we hear this every year, every year. And, you know, I don't know how much hope there is in this new cop that's going to be over in Dubai. You know that there's going to be any progress there just because things tend to move very, very slowly when you're talking about international collaboration of 200 different countries. But, man, I mean, just let's not sugarcoat [00:53:00] it. There is not enough being done right now and more urgent action is needed. And I'll just leave it at that for the other panelists.

Lance Gould: [00:53:12] Lauren. I'm sorry, Chris and Lauren.

Chris Gloninger: [00:53:15] You know, I mean, just to to, you know, look at that fact where so many people are saying, what about China? What about India? Well, China is actually surpassing solar installations, surpassing the United States and solar installations in the last couple of years, which is quite remarkable. I know that they're building plants that are fossil fuel run, but they are taking steps to embrace renewable energy. But even if you take that out of the equation, what ever happened to leading by example? And I think we really have lost our moral compass, which is really unfortunate. We're an international superpower, and in that role, we should be finding every way possible, not just scaling what we have with renewables, [00:54:00] but putting money into research and development and finding other alternatives to to make sure that we can scale those so we can get to to net zero. So I just wish that we could change that mindset of the others who aren't doing it. Why should we have to do it? Let's lead by example.

Lance Gould: [00:54:19] And to play on Lauren's point from earlier about some of the examples that she gave, there's the opportunity equation where there are there's money to be made. If we can transition the companies or the or the investors that back renewable energy have an opportunity to really to to have to have new ground to conquer. All right. Well, let's move on to Bart. Do you want to come back and ask the first question?

Bart Ziegler: [00:54:51] Oh, that's great, Lance. And as I hear people talk, I suddenly realize that a Cabinet position should [00:55:00] be a climate change leader because everything seems to be so involved with [leadership]. And, John, I'm looking at a map of Florida right now because here at The Samuel Lawrence Foundation. . . We say nuclear energy is not a is not a solution for renewable energies because I'm looking at one, two, three, four, five, six nuclear power plants on the east coast of Florida and one in Gainesville on the West Coast, where there are these hurricanes bearing down. And I think about our own San Onofre nuclear power plant that's been dismantled. But there's £3.5 million of nuclear waste sitting in thin, thin metal canisters on the beach, 100ft from the ocean. And all these surprise hurricanes. We know that these nuclear power plants that are operating need a billion [00:56:00] gallons a day of cooling water. With rivers drying up and oceans temperature rising. So what is the concern of the panel for this with respect to nuclear power plants in this country, on the coast and also around the world? Are there any comments that Chris or anyone would like to make?

Chris Gloninger: [00:56:33] I mean, when you look at renewable sources of energy, safety is critical. And, you know, I think that we need to explore safe forms of renewable energy. Um, you know, I come from Long Island where we had Shoreham, and there were concerns with that family in Pennsylvania that had to deal with Three Mile Island. So I know that there are concerns, but. [00:57:00] I think that what we

have now is important in getting us to net zero. But there was an MIT professor a couple of years back that was listening to during a talk and he said, chances are that technology that really will propel us to net zero doesn't even exist yet. So that's why when I say research and development is so critical that we need to be spending time to find other options to what is already out there, because it really is John mentioned earlier, it's all hands on deck, not just us, not just universities. It's a whole global effort. It's a collective effort. And we can't just stop our research with the technology that we have now. We have to keep going with that.

John Morales: [00:57:52] Yeah. So I'll just mention. That. Sorry about that echo. Hopefully that's not me. There [00:58:00] are some concerns. Regarding the location of one plant, the Turkey Point power plant is down here in extreme southeastern Florida along the coast. Although it is at a pretty high elevation to be safe from storm surge. So but that doesn't mean that local activists in particular have not been looking at that with very carefully And and as well, local news outlets have looked at that over the years. The bottom line is that Florida Power and Light did receive an extension of the operating license for, I believe, 40 more years. It's going to make Turkey Point might end up having then a total of 80 years of licensing, which [00:59:00] might be the longest one in the entire country. Um, however, and this is not going to be popular here, but to me nuclear power is part of the tools and I know that's not a very popular viewpoint here, but there are new ways of looking at that tool, including sodium cooled, including modular, you know, generation four and onwards of of plants always, like Chris said, making sure the safety is a prime concern. But I just don't know, unless some of these other technologies that Chris is suggesting and maybe maybe we have fusion, you know, instead of fission coming up someday and wouldn't that be incredible? But they're not here yet. And we need to stop injecting fossil [01:00:00] fuel burnings into the atmosphere yesterday. And that's why nuclear for me is a part of the solution. Be it not with old water cooled plants, be it sodium cooled, be it modular. But I believe that that technology needs to be a part of it. And now you can all throw your rotten tomatoes at me.

Lance Gould: [01:00:23] Um, Bart, do you want to jump in or. I was going to point to one thing that Chris said that an MIT professor said that we may not yet have the solutions that we need. A counterpoint to that is that we may already have the solutions that we need. We just need the political will to embrace them. Can if we were to have wind, solar and hydro and just keep nuclear out of the equation for the moment, would that be sufficient to generate the power that we need if we also have batteries to store the power that we accumulate?

Bart Ziegler: [01:00:59] And [01:01:00] Lance, let me add that the one thing that John says is absolutely true. We need more development and Chris said it as well. We need more research and development. Small modular reactors are not yet scaled. The the sodium the Natrium nuclear reactors, as we saw in Simi Valley, blow up and cause cancer. So these these projects are really wonderful if they're scaled and if research is done to make them safe. The biggest concern right now and then in the eye of the nuclear industry is the waste. This waste is the most dangerous thing on the planet for 100,000 years or 250,000 years. And so so until I mean, I'm not a panelist, but I can tell you that as soon as we get figure out what to do with the waste, that's safe, safer than using it, weaponizing it as [01:02:00] as the Russians do in Russia, Then until we got to John, we have. What are we going to do with the waste, John?

John Morales: [01:02:09] Oh, no, that's a very good question. I mean, you know, we've been, sadly and very unfortunately, using the planet as a dump right through all these years. And then everything came

to a head, you know, around the time of the Cuyahoga River fire there in and around Cleveland. And when we had that spill over in California, and then suddenly in the late 60s and early 70s, there was this wave of environmental regulation, which actually happened during a Republican administration. A lot of these, you know, NEPA and Clean Air Act and Clean Water Act were all signed around that time in the early 70s.

Lance Gould: [01:02:53] Nixon Yeah.

John Morales: [01:02:54] So so, you know, I'm not I'm not dancing around the question, you know, and not by [01:03:00] using horrible past examples of what we've been doing to just justify that we're going to continue to do it in the future. Let us just say that the R&D in nuclear, like, you know, like the federal Government is doing now in Idaho needs to continue to progress and needs to be accelerated, in my opinion, because the you know, I mean, look at France and all you know, I know the waste is there, but I mean, look at how they used nuclear energy to power themselves through decades on end it. The waste is a problem. But I think if we're going to, if we're not going to go back to the Stone Age in terms of, you know, how the lifestyles of people are going to be, then in my opinion, nuclear power can be a part of it if properly implemented.

Bart Ziegler: [01:03:55] And then France now has 60% of their nuclear waste, [01:04:00] of their nuclear energy, shut down because the rivers are dried up and they have cracks and corrosion in the existing plants and they still don't know what to do with the waste. But I say more research and development, just as Chris said. Lauren, do you have any suggestions or comments?

Lauren Casey: [01:04:21] I think it's great to talk about these large scale solutions because we certainly need them. We need to curb our reliance on fossil fuels. It's paramount and we do that as quickly as possible. But we also need to think about adaptation and dealing with the impacts that, you know, communities and our citizens are seeing right now. And particularly talking about extreme heat coming off, as John mentioned, the hottest July ever in the history of the planet. You know, I look around in Philadelphia, I live in the city, you know, historically redlined neighborhoods lack a lot of tree cover. They lack the canopy. They lack urban green space. And that, of course, exacerbates the urban heat [01:05:00] island effect in some cases by up to 20 degrees from one neighborhood to another. So we really need both large scale and small scale solutions to deal with our future, but also adaptation measures that help our people right now in the present.

Lance Gould: [01:05:19] And in terms of what Lauren is talking about, climate justice as well. Bart, do we have another question from the audience?

Bart Ziegler: [01:05:31] "What is the most challenging aspect of translating complex climate science into understandable and actionable information for the public?"

Lance Gould: [01:05:43] It's got to be the vorticity.

Lauren Casey: [01:05:46] Ha, it always is.

Lance Gould: [01:05:50] Chris, do you want to take that one?

Chris Gloninger: Oh, yeah [01:05:53] I think that you can't be overly technical. And Lauren and John both mentioned this. [01:06:00] You can't just impress people with jargon and expect them to think, you know, you're going to convert their thought process in. But tying it to how it affects people day to day is critical. Why does it matter to them? How does it affect their families and what does their future look like? That is how you can simply bring it down, but also using a lens to try to help fact check some of the misinformation, disinformation. And I'll just give this a quick example. There's been this campaign to say that climate related disasters, fatalities caused by them have been going down since 1920. And if you look at the graph, you believe it. But the fact is that the data set started in 1900. And if you look at the data prior to 1920, it would not be as dramatic as a drop. Technology has improved, warnings have improved, the science has [01:07:00] improved. And also what they weren't taking into account is the fact that there were other issues that were happening during these times of famine or drought or so. If you look at the bigger picture, there's an explanation why. So if you see or hear something, make sure. And to Lauren's point, you're getting it from a credible source, not somebody that's trying to persuade you, you know, against science. And that's what we're dealing with. And also, you know, a lot of Photoshopped graphics and graphs that are out there. I mean, just take a close look at like the Climate Stripes, for example. And my recommendation to climate dismissers that are out there being vocal: If have advice for you, it's to do a better job of Photoshopping

Lance Gould: [01:07:57] John you were going to say something, I believe.

John Morales: [01:08:01] [01:08:00] well, I mean, I think knowing your audience might be perhaps one of the biggest challenges. Um, I mean, look at what you've heard during this, during this webinar, right? Uh, Chris had a certain experience in Iowa. I've had a completely different experience in South Florida and with my Caribbean coverage. You know, when you know your audience, you're a better presenter. And I think that's a big challenge. There's a broadcast meteorologist currently in Charlotte. Her name is Elisa Raffa. And her career started, I believe, in Sioux City and then went to Springfield, Missouri, and then is now in Charlotte, North [01:09:00] Carolina. And she has found a way to communicate on climate to where. She hasn't really run into trouble at these different locations because she has found ways to relate to the audience and find relatable subject matter that will interest the audience. Along the lines of the subject matter of climate change. And people then suddenly realize, oh my, you know, it's affecting me. Think she did a story on beer once and how it was affecting, you know, hops and so on and so forth. So I think when you find folks that can understand the audience and on top of that, be able to still present the information and not, you know, not not run into trouble. Those folks are very commendable [01:10:00] in what they do. But that set of skills is very difficult to put together. It's just hard it's it's hard in certain parts of this country to get that message across in a non-controversial way.

Lance Gould: [01:10:16] Finally, do we have time for another question?

Speaker6: [01:10:21] Looks like we do.

Lance Gould: [01:10:22] How do we — Oh, go ahead, Bart.

Bart Ziegler: [01:10:24] How do we move from individual to collective action on climate change?

Lance Gould: [01:10:32] Let's give this one to Lauren. She hasn't had a chance to speak recently.

Lauren Casey: [01:10:37] That's a good question. And again, I think it's really focusing on the local and bringing communities together on aspects that they care about in their community, in their cities, and those shared values that can help people get motivated and organized. And again, bringing in the local solutions element of things that people [01:11:00] can get excited about to help improve their communities, not only combating climate change or making their local air easier to breathe and cleaner cooling things down. But really that shared experience of wanting to make where you live, your neighborhoods, your communities, your states healthier and happier and cooler for everyone to have kind of that both physical and mental health and just quality of life that we're all looking for. And, you know, climate change is I think sometimes people can see it as this kind of big, nebulous, very kind of complex and it is an issue. But in reality, climate change is something that we're all contending with every day in our neighborhoods. And we can see evidence of that, you know, from things like extreme weather to smaller things, as I mentioned previously, to the extended allergy season. So and really honing in and discussing [01:12:00] those impacts, those real life, real world impacts in a way that is truthful and honest and saying what we know and what we still have to learn about, and then getting people excited about solutions and getting people excited about cooperating instead of disagreeing and bumping heads.

Chris Gloninger: [01:12:19] I want to see more people joining Climate Matters, too. And I think that just a collective action as meteorologists that are watching this perhaps at a later point in time, you know, we're the station scientists. The American Meteorological Society did a tremendous job promoting us as the scientists at the station. Since we do have a background in science. But I will add, if you feel comfortable talking about astronomy, geology, geography, then you should damn well be okay to talk about climate change. It's our job to keep the public safe. And during a hurricane, that's what John does in Florida. And then the severe weather across parts of the mid-Atlantic, like when Lauren was on and when I was on in Boston with nor'easters or Iowa with tornadoes. [01:13:00] But when the weather is quiet, we need to keep our viewers safe from climate change. There needs to be even more meteorologists doing this. You can't be deathly afraid of not being liked. We're journalists at the end of the day, and that's to provide facts.

John Morales: [01:13:13] I'm going to jump in just to say – to say that I think that if we can, if we can get people talking about it. All right. It's going to move from individual to collective action. You know. For example, the easier it is to talk about it. These things are. If it's hot, it's not just because. It's because all of that in the background has been the, you know, unrelenting rise in temperatures over the last several decades caused by climate change and just find, you [01:14:00] know, find things that you have in common with the people that you're talking to, if you like to you know, if you like to jog, even if you walk your dog and you run into people, you know, it's so hot or what, you know, you see that rainstorm yesterday? My goodness. You know, I've never seen it rain that hard in such a short amount of time. Well, you know what? There's a climate link to that, too. There's a climate link to just about everything that we're seeing that hasn't been seen before in terms of extreme weather. And because everybody likes to talk about the weather, then why not just give that climate context along the way if more people start to talk about it to family, neighbors? Et cetera. I think it's going to become one of these things where people are starting to realize that together, together, we're going to be able to find the solutions as opposed to, you know, these individual actions, which are simply not enough.

Lance Gould: [01:14:58] It's a brilliant point as well. [01:15:00] And it will affect the supply chain. It will affect us in so many ways that we don't yet realize. When you think about the permafrost thawing and how that is unleashing viruses and things of that nature that had been off the table for so long that there's so many implications and so many ways that climate is affecting us. Thank you, Chris. Lauren and John for that insightful discussion, for all the wisdom that you've shared with us today. We have our challenges ahead, certainly, but the hope you've given us is truly inspiring. That concludes our program today to rewatch the webinar – Oh, we have another question. Sorry! [01:15:46] Okay. The last question.

Bart Ziegler: [01:15:48] Here, with extreme with extreme weather and climate change, nuclear is the most is nuclear the most dangerous solution? Another Fukushima waiting to happen? Can we ignore [01:16:00] that? I think, you know, we've really already answered that, John, with your interest and Chris and developing more future research and development on all of these things. Lauren, is there anything you want to say to this?

Lauren Casey: [01:16:18] I think John and Chris answered that question sufficiently. But certainly I think, you know, getting the opinion of community members of where these nuclear plants exist or could potentially exist or be built is an important element in how they feel that's going to impact their communities, their daily lives, what concerns they have about potential dangers. So I think that is an important component as well.

Lance Gould: [01:16:48] Um, okay. I think that concludes our program today. To rewatch the webinar to see a transcript, go to the Samuel Lawrence Foundation website in the coming days. The website is [01:17:00] SamuelLawrenceFoundation.org. Thank you so much to Beyond Nuclear, Sierra Club Canada, and the Blue Planet Alliance. Be sure to join the Blue Planet Alliance Partnership Pledge at BluePlanetAlliance.org to learn more about all the critical work that all these participating parties are doing to advance renewable energy and other sustainable initiatives, and to stay informed about upcoming events and important initiatives. Sign up for the newsletters of the Samuel Lawrence Foundation and Brooklyn Story Lab at BrooklynStoryLab.Net. Also, make sure you join us for the next Samuel Lawrence Foundation First Friday series on October 6th! Thank you all and goodbye.