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Doom and Gloom: The Role of the Media in Public Disengagement on Climate Change

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Introduction

In July of 2008, as a national broadcast correspondent, I reported on environmental conditions in Newtok, a remote community of roughly 400 Yup'ik people in Northwest Alaska. Newtok was losing forty to a hundred feet of coastline a year to erosion, and sinking because of "permafrost" that is no longer permanent, the direct result of a warming climate. Flooding threatened homes, the school, and the only supply of clean water. I chose to report on Newtok because the community was actively working on a relocation plan after voting to move to higher, more stable ground. My story compared the actions of Newtok with Kivalina, an Inupiaq community of the same size situated on a barrier island further north. Kivalina faced similar conditions and had filed suit that same year against ExxonMobil Corp. for damages caused by climate change.

In the decade since my report aired on *National Public Radio*, news outlets from all over the world visited Newtok, Kivalina, Shishmaref, Shaktoolik and a dozen other Alaska Native communities forced to consider relocation because of the effects of climate change. The national stories all fit the same narrative pattern. With images of houses tipping precariously off cliffs, and phrases such as "impending doom," and "cultural extinction," the reporting paints a picture of tragedy and hopelessness, framing community members as victims to sell the urgency of mitigation to the public. As a CNN correspondent unabashedly reported, "a trip here is like a trip into a disturbing future."[1]

The repetition of this narrow narrative in national and international media for more than ten years has not resulted in a groundswell of support for mitigation or adaptation. Nor has it resulted in public policy at the state or federal level. It may have even undermined the ability of these coastal communities to help themselves. According to a 2017 study by the Arctic Monitoring and Assessment Program of the Arctic Council, "Because government action on supporting community in general has been limited, and given the high and rising costs of relocation, it may very well be the case that people leave these communities individually and that some communities collapse before any concerted effort to relocate them en masse ever materializes. Unfortunately, governments have yet to act in many of these cases, thus delaying and increasing the magnitude of the costs and impacts. As these impacts accrue, people become less able to respond and adapt effectively."[2] As Enoch Adams of Kivalina sarcastically put it to me, "Well, how 'bout I move into *your* house?[3]

The Arctic is warming two to three times faster than anywhere else on the planet. NOAA's 2017 Arctic Report Card states: "The unprecedented rate and global reach of change disproportionally affect the people of northern communities, further pressing the need to prepare for and adapt to the new Arctic.[4]

For Americans, the "Arctic" is Alaska, a state that is among the first to experience the severe effects of a warming climate, where snow and sea ice have been declining so rapidly that coastal villages have no buffer from fall and winter storms. This is compounded by melting permafrost that has accelerated erosion and foundation

problems for structures and entire communities. While it's important for the public to see and understand this threat, it is also important for the public to see and understand how people are responding.

Anthony Leiserowitz, director of the Yale Program on Climate Change Communication, conducts research on the psychological, cultural, and political factors that influence environmental attitudes and behavior. He is best known for his research indicating "Six Americas," categories of public opinion about climate change, on a scale from "dismissive" to "alarmed." Leiserowitz says the media focuses disproportionately on impact, and Americans are tuning out. "I think most journalists come in, they've already got the story written, they say I want to do a story about climate victims, climate refugees, and so I'm going to go to a place like Kivalina which is a poster child for vulnerability to climate change and I'm coming to tell that story. I'm just going to get some actualities and some nice footage of houses falling into the ocean and then I'll go home and file my story. I don't think they spend the time with the people in those communities to understand the stresses they are facing and moreover, they're not really interested in thinking about 'how do we actually address these issues?' That's a different kind of a story, an increasingly important and more complex story that's not just limited to people in Kivalina. You've got cities like Boston and Norfolk and Miami and New Orleans all having to directly confront these fundamental challenges because it's at their front door now too."[5]

The underlying premise of this paper is that repetition of a narrow narrative that focuses exclusively on the impacts of climate change leaves the public with an overall sense of powerlessness. The paper focuses on five years of national media coverage of climate change in the U.S. Arctic, specifically stories about communities facing coastal erosion and relocation, to argue for journalism that provides a more representative view of the challenges posed by a warming climate. Such reporting would also include responses and innovations, and increase pressure on policymakers to act, rather than offering excuses for inaction.

The Climate Change Narrative: "Fear, Misery, and Doom"[6]

The importance of narrative in telling the climate change story cannot be underestimated. American sociologist Herbert Blumer developed the view that social problems are not just a reflection of objective conditions, but rather projections of collective views, that "a social problem exists primarily in terms of how it is defined and conceived in society."[7] Many Americans have not experienced the effects of climate change personally. Most however, have already formed some kind of opinion about it. "Global climate change did not necessarily come into worldwide consciousness through local experience but rather through global public discourses."[8]

An early mention of climate change in 1957 by Robert C. Cowen in the *Christian Science Monitor*, titled "Are Men Changing the Earth's Weather?" began to assign blame.

> Industrial activity is flooding the air with carbon dioxide gas. This gas acts like the glass in a greenhouse. It is changing the earth's heat balance. It could bring anything from an ice age to a tropical epoch…Every time you start a car, light a fire, or turn on a furnace you're joining the greatest weather "experiment" men have ever launched. You are adding your bit to the tons of carbon dioxide sent constantly into the air as coal, oil, and wood are burned at unprecedented rates.[9]

In their early reporting of the science, journalists helped to establish the concept of human caused climate change in the public mind.

Over the past several decades, as media coverage of climate change has grown, so has academic research of the coverage. A key study was that of the Boykoff brothers, Jules Boykoff, a political scientist, and Maxwell Boykoff, a climate and media researcher. In an analysis of four major American newspapers between 1988 and 2002, they concluded that journalists, by relying on their traditional norm of balance, had introduced a false equivalence into coverage.[10] What's known as "false balance" or "balance as bias," is the practice of adding a contrarian view from an organization skeptical of climate change, for example the Heartland Institute, to "balance" the view of a scientific organization, for example the Intergovernmental Panel on Climate Change (IPCC). I, myself, recall being asked to include "another viewpoint" in early reporting about findings of the IPCC.

Maxwell Boykoff took another look seven years later and found that the same news organizations had largely self-corrected, and the "proportion of U.S. coverage" providing this so-called "balanced coverage" of climate change had "decreased from as much as one-third of coverage in 2003 to just over 3 percent in 2006."[11] Boykoff then called attention to a new trend of daily "fear, misery, and doom headlines and articles," and cited research in the U.K. that found while "dramatic and fearful representations can successfully raise awareness and concern about climate change…these kinds of images were also likely to distance or disengage individuals from climate change, tending to render them feeling helpless and overwhelmed when they try to comprehend their own relationship with the issue."[12]

Going a step further, Boykoff teamed up again with researchers from the U.K. and specifically looked at media coverage (including social media) of the IPCC Fifth Assessment Report. Their study concluded that problems caused by climate change were deemed more newsworthy than solutions, and that coverage was fueling a sense of hopelessness. Few IPCC stories were found to have been framed "in terms of opportunities, health effects, ethical considerations, or the economics of global warming."[13]

Boykoff is currently director of the Center for Science and Technology at the University of Colorado-Boulder, which created a "Media and Climate Change Observatory" that keeps daily track of climate change stories in 38 countries. Boykoff says, "There's still a pervasive doom and gloom, and this makes sense. It's logical when you're talking about people who are impacted by climate change, they are usually adversely impacted. But

nonetheless, some of the work that's been done in social sciences over the years has found that when these stories just focus in on doom and gloom, they turn off those who are consuming them. Without being able to find their own place as a reader, viewer, or listener in those stories, people feel paralyzed and they don't feel like they can engage and have an entry point into doing something about the problem."[14]

While it might seem contradictory to provide information about mitigation or adaptation in a story about climate change impacts, it is standard procedure in the coverage of public health. What reporter covering a flu epidemic wouldn't think to provide information in the same story about the availability of a vaccine or how the disease was being transmitted? Lauren Feldman, of George Mason University's Center for Climate Change Communication, says unlike public health, stories about climate change seldom discuss both threat and efficacy information, or impact and action. "I think there is a model in public health. You tell a story about a crisis or a disease and you tell people what they can do to avert that crisis. A very similar approach can and should be taken with climate change. Here is a threat and here are some steps that you as an individual can take, and here is what the government is doing or and here is what industry is doing."[15]

In a study of climate change coverage by U.S. network television news between 2005 and 2011, Feldman found that impact and efficacy were rarely discussed together in the same broadcast, and to the extent that efficacy was discussed at all, it was framed in terms of conflict—a fight between political parties, or the impossibility or downside of a potential remedy. Feldman says, "Our most consistent finding is that including the efficacy or solution information increases people's sense of hope, and of all the emotions that we study, fear, anger, hope—hope is the most consistent driver of intentions to engage politically, support for climate mitigation policies, energy conservation behavior; so hope is really important."

Feldman speculates journalists fail to tell the solution part of the story because it's not as dramatic and it smacks of advocacy. "There isn't convergence yet around solutions. Journalists see consensus around the science now, but if you pair the science with what an individual can do about it, it looks like you are making an argument for a specific action, so it's left out. But our empirical research indicates that people will disengage if it's left out, if all they get is the doom and gloom message."[16]

Yale's Leiserowitz calls this a "hope gap." In his "Six Americas" study, he divided Americans into six groups, the dismissive, the doubtful and the disengaged, the cautious, concerned, and the alarmed. Even the alarmed, the most concerned about climate change, were not likely to know how to respond. "What we know is that fear alone doesn't do it, especially when you are talking about long-term systemic problems like climate change." While it's important that people understand the risk, the threat, they also need to understand what they can do as individuals, or collectively, "the ability to respond, the time, money, skills, technology…and more importantly that if we take these actions it will make a difference, it will help at least reduce the risk, if not end it all together. You need both."[17]

Journalists shape narratives about climate change and do so by choosing the importance of one storyline over another. A classic storyline arc is in the shape of a "U." A man falls into a hole and figures out a way to get himself up and out of it. The storyline ends slightly higher than where it began, which is encouraging, because after all, the man climbed up and out. The story is not as encouraging if he simply falls into the hole. Yet, most climate change reporting is the story of falling into an inescapable hole.

Alaska in the Climate Change Narrative

Over the last few decades, national and international media outlets have spent considerable time and money sending correspondents to remote communities in Alaska to witness and report on the human impacts of climate change. These are places that are not connected by road, populated primarily by indigenous people who live, in large part, a subsistence lifestyle. As anthropologists Elizabeth Marino and Peter Shweitzer noted in 2016, "with the rise in public discourse about climate change, the overwhelming desire to document the phenomenon, and the identification of Arctic residents as some of the first "victims" of climate change, rural Alaska has been besieged with unprecedented numbers of journalists, photographers, scientists, and politicians over the last 25 years. All seem eager to engage in a discussion or, even better, to get a photo of people who have first-hand experience with climate change."[18]

Marino and Schweitzer, who *themselves* were documenting the impacts of climate change in the Alaskan community of Shishmaref, reported that "while we were making dinner with a Shishmaref resident, who had already been featured in a Canadian documentary about climate change and been quoted and photographed for *People* and *Time* magazines, two television crews, one from Japan and one from Colorado, simultaneously filmed a story on climate change in his kitchen."[19]

The shape of the narrative begins in the early stages of the reporting process, in the very questions that are posed: How does it feel to be a climate victim? What is it like to know that you may lose your home in the middle of the night? Are you afraid of losing your culture? Just how bad are the storms? How does it feel to know there is nothing you can do to stop it?

Marino and Schweitzer document that in Shishmaref, as is the case in other Inupiaq and Yup'ik communities, residents "are hesitant to hyperbolize conditions of flooding and environmental shift. Journalists, however, are quick to use catastrophic language."[20]

> Stripped to his shirtsleeves on a desolate polar beach, the Inupiat Eskimo hunter gazes over his Arctic world. Thousands of years ago, hungry nomads chased caribou here across a now-lost land bridge from Siberia, just 100 miles away. Many scientists believe those nomads became the first Americans. Now their descendants are about to become global-warming refugees. Their village is about to be swallowed up by the sea.

> "We have no room left here," Tony Weyiouanna, 43, said. "I have to think about my grandchildren."[21]

Sally Russell Cox, the sole community planner for the state of Alaska, has been working with the village of Newtok since 2006. She says she rolls her eyes when she gets yet another email from a media organization asking for contact information. "I just had two different reporters today who I haven't gotten back to yet, wanting to go out to Newtok, but it's like, 'have you even looked and seen how many times this story has been told?' And it's always, always the same story. Look, the people of Newtok are not victims. They are not refugees. We know what the problem is and we have been moving forward. That's the story."[22]

Romy Cadiente is the relocation coordinator for Newtok. After a lengthy webinar discussion in Washington D.C., during which he detailed the problems and progress made toward relocation, the host of *Wilson Center NOW* asked him how he felt about climate deniers, those who are uncertain about the science. Cadiente sidestepped the loaded question and replied patiently, "There's just a lot of information that's already published about us, there's no room for talk anymore. There are thirty-one villages right now in Alaska experiencing the same problem. Let's *do*, guys."[23]

Voiceless Victims[24]

To determine the dominant narrative of national media coverage of climate change in the Arctic, we conducted an analysis of stories containing the key terms "climate change" and "arctic" in prominent print, radio, and television news outlets over a five-year period, from March 2013 to March 2018.[25] This analysis includes the years before, during, and after President Obama's high-profile visit to Alaska in 2015 as the U.S. assumed chairmanship of the Arctic Council.

The analysis establishes that most news stories during this time period focused on the science of climate change with no human subject. When these news stories did include people's voices, they were overwhelmingly "experts," including scientists, policymakers and advocates. Few included the voice of actual residents.

Of the minority subset of stories that had a human subject at the center of the narrative, it was that of an indigenous person or community. Of that subset, the individual or community was overwhelmingly framed as a victim facing environmental threat or loss. The dominant Arctic climate change story involving people focuses on coastal erosion and the prospect of relocation, a story that has been told repeatedly for more than a decade with little discussion of mitigation or adaptive responses.

The search revealed that the majority of stories are not about people at all, but rather about other aspects of the ecosystem, with sea ice, polar bears, walruses, and ocean temperatures chief among them. Of the 1,450 stories analyzed in our survey, ice is mentioned 4,559 times—an average of more than three times per story. Derivatives of

“melting” are mentioned 1,178 times. Polar bears and walruses are mentioned nearly as often as Alaskans: Polar bears are mentioned 260 times and walruses are mentioned 206 times, while the word “Alaskans” comes up 289 times. Strikingly, the term “polar bears” is twice as frequent as the term “indigenous,” which only appears 118 times in the stories analyzed. Furthermore, when these indigenous communities are invoked, they rarely speak.

A selection of articles from *The Washington Post* illustrates the trend. Between 2014 and 2016, the *Post* published an article about 35,000 walruses crowding the shores of Alaska, another science story about starving polar bears, a travel section article about going “nose-to-nose” with a polar bear, and a piece that appeared on page A10 with the headline, “Arctic melt has animals migrating to strange places.” While this article quotes academics and scientists from Stanford, the University of Washington, and the Smithsonian, it does not mention or quote any Arctic residents. The travel section story about polar bears had no quotes from the local people in the Inupiaq village of Kaktovik, who were described as “reticent.”

A second trend is that, of the stories that do involve people, the majority are scientists, policymakers, and advocates. “Geologist(s),” “expert(s),” “scientist(s),” or “doctor(s)” are mentioned 3,681 times in the data set, an average of nearly twice per story. Whereas, “indigenous” and related terms such as “native” are mentioned 472 times in the data set, an average of 0.25 times per story. For every twelve stories *The New York Times, The Washington Post,* NPR, ABC, or NBC produced on climate change in the Arctic in the last five years, only three mentioned the people who actually live there.

Of the stories that do involve local people or a community, most are about indigenous people facing difficulty, such as coastal erosion or inadequate funding for relocation associated with that erosion. Most of these stories frame local communities as endangered, threatened, facing losses, and incapable of responding. None of them use words such as “strong,” “capable,” or “empowered” to describe people. In fact, “strong” often describes the forces of climate change, as in “strong storms” or “strong resistance in Congress.”

Visually, a majority of the television and print stories use wide aerial shots, along with eroding beaches and cracks in the tundra, to convey the vulnerability of these communities, raising the unanswered question of why people would ever choose to live in such a place.

It is important to note that residents of Newtok and other communities in Alaska that are most at risk live in their current locations because they were required to settle there. Yup’ik and Inupiaq people lived semi-nomadic lifestyles in the region for thousands of years. In the 1950s the government mandated that all native children receive formal education, even if it meant attending boarding schools hundreds of miles away from family. In the region, schools were built where barges could offload construction materials, on sand spits and barrier islands in river deltas prone to flooding and erosion. Because of the mandate, communities grew around the new schools. Elder Lucy Adams explains her family’s decision to paddle 70 miles to where

she lives now: “In July, we take off in skin boats from Point Hope to Kivalina, because we were not in school, us children, and so the nearest one was going to be here, and that’s why we are here.”[26]

The restricted narrative in national media coverage of how these indigenous communities are impacted by climate change is not limited to Alaska. McGill University’s Ella Belfer and her colleagues examined climate change reporting in eight major newspapers from 1995 to 2015 in Canada, the United States, Australia, and New Zealand. They found that indigenous people are most often framed as victims and “harbingers” of climate change. The coverage “ignored legacies of colonialism and marginalization that has made them especially vulnerable. Impacts were typically discussed at the regional level, notably neglecting community impacts and responses. indigenous knowledge was most valued when it corroborated scientific knowledge or conformed to romanticized stereotypes. Thus coverage of indigenous peoples is used to promote the importance of broader mitigation efforts to the general public, rather than initiatives that would directly support indigenous communities.”[27]

Helpless Victims

“*Winter storms are literally eating the village alive*”

—NBC News[28]

A qualitative examination of national media coverage of Newtok and other communities experiencing coastal erosion and the prospect of relocation reveals a similar narrative pattern. The traditional broadcast networks (ABC, CBS, NBC, CNN), along with online multimedia sites (*Vice News, Al Jazeera America, The Guardian,)* begin with somber music beds and images of waves, sandbags, houses perched on eroding bluffs, and aerial shots to illustrate geographic isolation. Major newspaper and magazine stories follow a similar structure, with text and images chosen to set the scene of environmental disaster. The community is described as being “erased,”[29] “swallowed up,”[30] “swept away,”[31] “washed away,”[32] in the process of “disintegrating,”[33] “vanishing,”[34] “disappearing,”[35] “one bad storm away from being wiped off the map,”[36] to the point where it will be “lost to the sea,”[37] and “cease to exist.”[38]

Either the “clock is ticking,”[39] “the clock is running,”[40] “the village is on borrowed time,”[41] or “is running out of time.”[42]

Community members are described as the “first climate refugees,”[43] “climate change victims,”[44] and “carbon’s casualties.”[45] Most are asked to describe or physically demonstrate on camera just how close their homes are to the threatening ocean or river that is “literally eating the village alive.”[46] The interviewees are asked how bad the problem is and how they feel about it.

“Sometimes, we lose 100 feet a year,” Paul Charles told me, over a bowl of moose soup.[47]

“I would like to live without having to worry about having to evacuate, or having to run.”[48]

“It’s been going on for so long, and I am beginning to lose hope.”[49]

The substance of most of these stories is an emotional description of the problem. How the community is responding is an afterthought. If the story does include a discussion of responses, they are framed as obstacles—the inability of residents to get federal or state funding for relocation, the inadequacy of retaining walls that have been funded thus far, what might be lost if the community moves, the difficulty of responding locally to climate impacts. Most repeat the impossibly high relocation price tag calculated by government agencies:

“The Corps of Engineers estimates that moving would cost as much as $130 million, or more than $412,000 per resident.”[50]

In the few more comprehensive reports about Newtok, the community that is the closest toward relocation, its new housing site, Mertarvik, is mentioned in the context of how little progress has been made, the few buildings that have been erected, and the difficulty of getting construction materials.

Finally, and notably, most reports end with a further message of impending doom, leaving the audience deep in the hole with little hope of climbing out:

“Over the past few weeks, the fall rains have started, once again threatening to flood her hometown.”[51]

“He knows the time is coming when all this could be lost.”[52]

“A ruined world, and the Inuit are facing it right now.”[53]

A *Vice News* video report titled “Climate Change Is Killing This Alaska Village,” ends with Relocation Coordinator Romy Cadiente, well-known for his relentless optimism, close to tears after being asked on camera, “It’s going to take millions of dollars to move Newtok, why should that money be spent moving a couple hundred people?”[54]

There is little, if anything, in most national news reports about resilience, that Yup’ik and Inupiaq have lived in the region for thousands of years, weathering and adapting to environmental and cultural change. It doesn’t fit the narrative. But leaving it out, researcher Henry Huntington says, ignores history. “If people in the Arctic weren’t good at making the best of what they encounter, there wouldn’t be people in the Arctic.” Huntington has studied human-environment interactions in Alaska, Canada and Greenland for decades. He says media coverage of the human impact of climate change provides a distorted view of communities. “I don’t see how it cannot distort your perception of yourself and your community too. It perpetuates this idea of being a victim, if the only thing we want to know from you is, ‘Whose house is next to erode into the sea?’”[55]

The media aren't the only culprits. Huntington and his colleagues from Finland, Norway, Russia, Canada, and Greenland have found a similar narrow focus in scientific research. They note that life in the Arctic is being studied solely through the lens of climate change and propose a reframing of Arctic research around deeper socio-ecological contexts and community needs. "These people have faced a changing environment and it came at a price. They had tough times and they persisted. Nobody in these communities is sitting around saying when is the next IPCC report coming out to tell us what's going on. They are saying 'what are we going to do today?' Understanding and creating the conditions that foster innovation is a much more useful contribution to the well-being of Arctic communities than speculating about what climate-related disaster will next befall them."[56]

Noor Johnson, a research scientist at the Science Diplomacy Center at Tufts University's Fletcher School, conducted a study in Kangiqtugaapik, or Clyde River, on Baffin Island, of how Inuit knowledge about climate change in the community was being collected and used in decision making and policy. Her study cites this exchange between an Inuit elder, Quqqasiq Apak, and an interviewer:

> Interviewer: Did you used to use igloos earlier in your life more?
>
> Apac: Yes, very much so, it was our main form of shelter when you are traveling. While you were out, as soon as it would start to get dark outside you would start searching for snow that was suitable for igloo.
>
> Interviewer: Why don't you rely on igloos anymore?
>
> Apac: Because we have great accommodations from qallunaat (non-Inuit) such as tents and other items that are easier to use.
>
> Interviewer: Is it more difficult to find the right ice and snow conditions to build the igloo now?

Apac's answer was ignored. The interview was used in a legal petition to make climate change a human rights issue, in a section titled "Deteriorating ice and snow conditions have diminished the Inuit's ability to travel in safety, damaging their health, safety, subsistence harvest, and culture." Igloo building knowledge was presented as 'an important component of Inuit culture' and a crucial technology for safe travel on the land."[57]

Framed Out: Resilience and Response

Over the last decade, journalists have justifiably called attention to the human impacts of climate change, specifically in Alaska, with stories about communities facing coastal erosion and the prospect of relocation.

There is no federal or state government agency with a mandate for funding to relocate communities that are becoming uninhabitable due to climate-induced environmental change. There is no governmental framework to address "slow moving disasters." This is undeniably an important story, worthy of attention. But it is also important how that story is told. The predominant narrative is of an environmental tragedy, involving people with little hope or ability to respond.

In a Shorenstein Center study of television coverage between 2001 and 2010, Frederick Mayer concluded that the pattern of narratives about climate change could explain some portion of a shift in public opinion about climate change, and that "the challenge is to find ways to tell the story that are true to the facts, and to enlist the media in that effort."[58] While Mayer's study focused on public attitudes about the very existence of climate change, narrative may be just as important in public attitudes about efficacy, the ability to do something about it, mitigation and/or adaptation. In reporting the story of Newtok, for example, many facts have been repeatedly told nationally and internationally: the community is threatened because of a warming climate. But the facts that are left out or downplayed, may be just as important to report: the community has been in the process of relocating for more than ten years.

While frame analysis is often used to look at the content and impact of stories, the absence of certain aspects and information can be as critical as what's included. "Frames are the focus, a parameter or boundary for discussing a particular event. Frames focus on what will be discussed, how it will be discussed and above all, how it will *not* be discussed…like the border around a picture that separates it from the wall and from other possibilities."[59]

Newtok's decision to move as early as 1994, and the community's efforts and progress toward relocation 9 1/2 miles across the water from its current site is the rest of the story. Relocation has required raising millions of dollars and navigating a bureaucratic morass. It began with a land swap in 2003 after years of negotiations with the U.S. Fish and Wildlife Service. It involved formation of the Newtok Planning Group in 2006, a volunteer group of community members, public servants, and non-profits, which has been working with a wide range of organizations from the Fairbanks Lions Club to Harvard Law School. To date, with the help of financial and technical assistance grants, volunteer training, and collaboration with a multitude of agencies, the new community of Mertarvik is taking shape and can be seen on a clear day from Newtok. "Mertarvik," which means "place to get water," has a fresh water spring, and is on firm ground, the volcanic rock of Nelson Island, long a traditional hunting and fishing area for the people of Newtok.

Community planner Sally Russell Cox says although media outlets continue to clamor to visit, there has been little interest in the actual process of relocation. "These people are taking control of their future and developing a new community. It's a very powerful story. Victim is not part of who they are. I think we need to be telling the story about not only how they are making do under difficult circumstances right now but what their vision is for their future and how they are working to go forward with that vision. It hasn't been in the news because I think the media wants to tell the other story."[60]

The Newtok community's firm decision to stay as close as possible to the original site, as opposed to moving to regional hubs such as Bethel, or the major cities of Anchorage or Fairbanks is also important and instructive. As a resident of Quinhagak told the Alaska Institute for Justice, "Alaska natives have gone through generations of great changes. In order to survive we have had to adapt to these changes. We have faced challenges: epidemics, cold winter months without electricity or stoves, and now climate change. We are still here. Even with the high cost of living in rural areas, we love where we live. That is why we will strive to live in the areas where our ancestors came from."[61]

The process of moving a community, even a community as small as Newtok, is painfully incremental, but it is a process that is worth writing about for the same reason so many media outlets sent correspondents to Newtok in the first place. While the media presents Newtok's plight as a harbinger of climate change impacts, Newtok's response might serve as a model, not only for other communities in the region, but for coastal and island communities facing the same challenges in the rest of the country and world.

The residents of Newtok chafe at the word "victim," and prefer to call themselves "pioneers." For five years, they teamed up with the Department of Defense to build the village foundations at Mertarvik. As part of summer training, the troops learned how to create a base in a remote area and helped residents erect storage buildings, a barge landing and an access road. There are currently seven homes constructed at the new settlement of Mertarvik, with four more due to be completed this summer. One is a prototype designed by the Cold Climate Housing Research Center that is extremely energy efficient and moveable. The house is built on skids and can be towed across the ice or tundra when needed. It contains a small water treatment plant and a generator that can be used before public utilities are available. A "man-camp" was also built on-site that can house thirty workers with laundry, showers, and toilets, amenities that don't exist at the old community site. Another thirteen homes will be delivered by barge in the summer of 2018, retrofitted barracks from a military base in Anchorage. That brings the number of homes up to twenty-four, which then allows state agencies to fund infrastructure, a power plant, an airport, and a school.

While progress has been slow and there have been many setbacks, Newtok has made the cost more manageable with creative partnerships, and local people were trained on the job to drive heavy equipment, install plumbing and electricity. Village Council President Paul Charles explains, "We wanted *our* village to build *our* village."[62]

Solutions

"If you look at the science about what is happening on earth and aren't pessimistic, you don't understand data. But, if you meet the people who are working to restore this earth…and you aren't optimistic, you haven't got a pulse."

—Stephen Hawking[63]

The story of communities facing coastal erosion and relocation in Alaska, the United States, and worldwide, fits into a larger pattern of news coverage of climate change. The

threat to humans, polar bears, outdoor ice rinks in Canada, and entire ecosystems is told on a daily basis. Espen Stoknes, a psychologist at the Center for Climate Strategy of the Norwegian Business Institute, and Green Party politician, has coined the term "apocalypse fatigue," to describe how people tire of constant threats that challenge daily life, and as a defense mechanism, don't take them seriously or avoid them. The repetition of the narrow narrative of Newtok, writ large, may not even be that compelling.

If the role of the journalist is to seek the truth and report it, so that citizens will be informed and effective, reporting just the doom and gloom about climate change is insufficient. Calling attention to the impacts of climate change is essential if you are a journalist covering climate change. But if how people are responding, individually and collectively, is framed out, the whole story is not being told.

"Solutions journalism" is often dismissed outright by traditional journalists as feel good news, or as advocacy. "That's just wrong," says David Bornstein, the co-founder of the Solutions Journalism Network which "trains journalists to report what's missing in today's news."[64] He says it's not enough to know what's broken; that people need to know how problems could be, or are being fixed. This does not however, mean filling the "hope gap" with hopeful stories. Rather, he says it means allocating "*appropriate attention* to stories of constructive problem-solving, stories that are important and compelling, but often neglected. When too many people are aware of a problem but they don't have a sense of what can be done, it leads them to opt out, tune out, and that's bad for democracy. By showing that something is working in one place, it takes away the excuses for failure elsewhere, and increases the pressure on public officials."[65]

The Tyee is an independent digital news magazine in British Columbia that has embraced Bornstein's model. Founder, publisher, and editor, David Beers says the value of solutions journalism is not that it injects hope into public discourse, but that it "keeps faith with the basic mandate of news to provide an objective, accurate, and useful description of the world in which we live. To really show people how policy works, how government works— how government, business NGO's can work together to solve something—you really have to not just report on when it goes to hell; you've got to report on how it's going right, or might go right."[66]

In the context of climate change reporting, Bornstein says he feels like journalists keep adding the word "really," to the same story, as in, "This is really bad, this is really, really bad," which eventually doesn't resonate, because people don't want to hear the dire warning message again and again. "It's not about telling a fake story to make people feel better. It's just understanding that people need on-ramps, especially for difficult, threatening issues—so showing them 'here are companies making changes that keep profits but reduce the overall emissions footprint,' or 'here's a new kind of financing for renewables,' or 'here is a place where people under threat have managed to stay on the land and maintain their culture.' You're just telling the story of what human beings are doing right now around climate at this point in history."[67]

News coverage that includes responses to climate change, as opposed to just documenting or dramatizing the impact, provides what Bornstein says is "a more complete view of society." It also gives people the ability to imagine their own responses, to see themselves as part of a solution, or even as agents of change.

Closing Thoughts

"Moping is not a survival skill."

—George Noongwook, Former Chairman of the Eskimo Whaling Commission, Savoonga, Alaska[68]

Researching this paper has been my own response to a troubling sense I have felt over the years while reporting on the lives of people in rural Alaska and in the Arctic at large. No matter how much I tell myself I am shining a much-needed light, bearing witness, seeking the truth, it has felt at times exploitative. As climate change continues to transform the place where I live and work, and pushes remote communities to the front and center on a national and international stage, I feel compelled to reconsider my role as journalist.

Along with seeking out those who have been studying the media's coverage of climate change, I had surprisingly similar conversations with two men who have long been in the trenches, a scientist and an advocate. Both "walk the walk" more than most. I posed the same open-ended question to each of them, "How do you think we in the media have been doing on this?" Bill Moomaw, the scientist, said, "not so great." Trained as a physical chemist, Moomaw spent the better part of his life translating science and technology into policy terms, most recently at Tufts University's Fletcher School. He was the lead author of three IPCC reports, including a 2007 report that was recognized with the Nobel Peace Prize. In a small college town in Western Massachusetts, Moomaw built a highly efficient net zero home that uses no fossil fuels, one of the few in northern climate zones. Now in his eighties, he has barely paused in his work. I found him editing his latest paper and preparing for a lecture that evening on the importance of trees as carbon sinks. "I've always been solutions oriented. I'd rather work on mitigation, than on how bad it's going to be."

Moomaw's assessment of the media's coverage of climate change is that it's incomplete. "The subject is difficult to convey, it's complicated. It has multiple dimensions and some of it is depressing. But I'd like to point out that there's an optimistic side to this because there are ways for us to address this problem. I think it's important for people to understand the urgency, but it's the urgency to act and we have tools that we can use to act; that's what I think is missing in the message."[69]

On the other side of the country, on the top floor of a six-story building in downtown Seattle, Denis Hayes nods his head in agreement. Hayes created the first Earth Day in 1970, expanding it to more than 180 nations. In the Carter administration, he headed the Solar Energy Research Institute, which is now the National Energy Research

Laboratory. A tireless advocate of sustainability, he is currently the president of the Bullitt Foundation, dedicated to protecting the ecosystem in the Pacific Northwest. He designed and built Bullitt's current headquarters, a commercial building that is the greenest and most sustainable in the world. Gesturing around him, he says it's a place that, "honest to God, shows America, shows the world, what you can do today."

Like Moomaw, Hayes says there is a repetitive message of general pessimism in climate change reporting. Having spent much of his life as an environmental advocate giving "really depressing speeches which truthfully weren't that effective," he says, "There's a responsibility for those of us who are active in the field, and I think, a responsibility on those of you who are covering it, to make sure that hope is part of your stories. It's not just houses falling into the sea. I talk about this building, what's possible."[70]

If we journalists have self-corrected for false balance in climate change reporting, the challenge now may be to self-correct from a steady drip of catastrophic visions. Newtok is moving to Mertarvik. It may be slow and there have been setbacks, but this community "threatened" by climate change, has long been eager to move and is adapting, one grant, one innovative idea, and one barge-load at a time. The people of Newtok are undaunted by the challenge and their community will not "cease to exist." In fact, life just might be a little bit better on higher, more solid ground with fresh water. It's a story worth writing and it's a story that provides a "more complete view of society," maybe even a story that is inspiring.

Newtok has a Yup'ik word for the day when the whole community is finally moved in at the new site, "Piciurtellruuq," It means, "it came to be."

Acknowledgments

Twenty years ago, as a fledgling NPR correspondent, I was given an award by the Shorenstein Center for political coverage. That honor gave me some much-needed confidence and courage at a time when radio reporters were at the back of the bus and nobody returned my phone calls.

Once again, two decades later, the Shorenstein Center on Media, Politics and Public Policy at Harvard's Kennedy School gave me some timely encouragement and inspiration. I return to Alaska wiser and with a new purpose. My sincere gratitude for the honor and opportunity of this fellowship.

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Appendix I: Keyword Search Methodology

The quantitative analysis in this paper is based on the results of a search of the Factiva database of content from March 2013 to March 2018. The search consisted of the keyword search string (Arctic AND "climate change") in NPR *Morning Edition*, NPR *Weekend Edition*, NPR *All Things Considered*, NBC *Nightly News*, ABC News *Nightline*, *The Wall Street Journal*, *The New York Times*, and *The Washington Post*. The search consisted of all written content, including print articles, online content, and radio and television transcripts. It excluded duplicates from the data set, so that each article or transcript only factored once into the analysis.

The Factiva search produced 1,917 results. The breakdown of these results by news outlet is as follows: *The Washington Post*: 928, *The New York Times*: 721, *The Wall Street Journal*: 190, National Public Radio (all sources): 65, ABC Network (all sources): 7, NBC Network (all sources): 6.

Appendix II: Textual Analysis Methodology

The word associations and frequency counts in this paper are derived from queries within the qualitative data analysis software NVivo 11 Pro. NVivo imported and analyzed the 1,917 Factiva search results and ran text search and word frequency queries. These queries produced simple word counts, sentences surrounding a given word or phrase, and word trees that illustrated and quantified the associations among adjacent words. The queries were conducted using exact match, stemmed word, and synonym searches.

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[25] For this study, we used the global news database Factiva to identify all news stories over the last 5 years that mentioned the terms "arctic" and "climate change" in the following news outlets: NPR (*Morning Edition, All Things Considered*, and *Weekend Edition*); NBC News (*Nightly News*); ABC News (*Nightline*); *The Wall Street Journal* (print and online); *The New York Times* (print and online); and *The Washington Post* (print and online). The search yielded 1,450 unique stories. We analyzed the content of the stories using NVivo qualitative analysis software. For a full description of search terms and count of news stories by outlet, see Appendix I.

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