

"We Were Cut Off From the Rest of the World . . . and From Each Other":

Advocating for the "Whos" After Hurricane María

Dina Lopez¹

¹ Texas Tech University

Abstract

This article intersects the US government's imperialistic attitude with its ambivalent and sluggish behavior towards helping the island of Puerto Rico achieve disaster preparedness and recovery from hurricane events. To learn how Puerto Rican residents employed self-reliance and resiliency in the context of disaster to shift and extend past definitions of tactical technical communication, I triangulated US-based longform reports with a radio journalist's logbook from Hurricane María. From the stories in these texts about how Puerto Ricans crafted communication, I conclude that this craftiness during disaster empowered the Puerto Rican community to enact post-Hurricane María political and social changes on the island.

Introduction

On September 7, 2017, Hurricane Irma skirted past the northern shore of Puerto Rico. Listed as a category 5 hurricane, Irma was catalogued as “one of the strongest and costliest hurricanes on record in the Atlantic basin” (Cangialosi, Latto, and Berg 2018, 1). The island was barely recovering from the damage to its capital and major electrical and water supplies when Hurricane María followed just ten days later. María, a category 4 hurricane, swept across the entire island for eleven hours. The “third costliest hurricane in United States history” caused a three-month blackout over the entire island (Pasch, Penny, and Berg 2019, 1).

Both the colonial and local¹ governments delayed disaster response for ten days. Island residents did not have ten days. They needed immediate help: rescue, food and water, and medical needs. Their friends and families on the US mainland needed information about their survival status. With all electrical systems down and internet towers destroyed, practically no communication was available until the local and Federal governments would/could move to begin assessing response to any disaster. I know. Our family in Puerto Rico experienced Hurricane María, and we had no clue as to their status for two weeks. When we could finally communicate with them, they shared with my husband and me how they immediately began “a coalitional counter-praxis of survival . . . *autogestión*, loosely translated in English as ‘self-management’” (Soto-Vega 2019, 40). My husband’s sister Almi told us, “we didn’t have any idea how bad it was everywhere else. All we knew was what was in front of us and next door. We all banded together as neighbors and helped one another out, but we had no idea how Eva and Kris or Frankie and Ivania were [my brothers and sisters-in-

¹ *In this article, I use the terms “local” and “local government” in reference to Puerto Rico.*

law across the island from Almi], and we had no way of contacting them. We just had to wait” (personal communication, November 2019).

My husband’s family was not as badly affected by the storm as other families were. *Abuela* was with one of her daughters; everyone’s homes were still standing—although they had a lot of water damage inside and out—and none of our family had immediate health issues. Other island residents were not as fortunate. Some needed immediate rescue, and others needed medical care. They did not have the luxury of waiting for someone to help them find ways to communicate with each other or for medical help. Abandoned by their colonial government and frustrated by their own government’s slow response efforts, these citizens of the United States were moved to enact their own ways to communicate with each other and first responders immediately after Hurricane María had passed over the island.

Background

Remember the movie titled [*Horton Hears a Who?*](#) It was based on Dr. Seuss’ 1954 tale of the same name about a kind jungle elephant named Horton who hears a sound coming from a world so tiny that it fits on a speck of dust. Throughout the movie, Horton defends the existence of the tiny world, arguing “a person’s a person, no matter how small.” Sometimes I feel like Horton when I discuss the island of Puerto Rico with anyone who has been educated in the 50 United States—it seems US history curricula has not done a very good job of teaching the history and status of its most populous territory south of Florida (World Atlas). In an online article about the National Association of Hispanic Journalists’ (NAHJ) effort to support Puerto Rican journalists after Hurricane María, NAHJ executive director Alberto Mendoza reported, “we came across polls that showed less than half of Americans knew Puerto Ricans were American citizens” (Fortis 2018).

My husband José, a native of Puerto Rico, experienced such ignorance in the 1980s when he attended college in Texas. He often travelled to classmates' homes in Mexico during Thanksgiving and other short holidays. Upon returning to Texas after a holiday, he presented his driver's license to the border agent, who refused him entry back into the US, telling him that his driver's license from Puerto Rico did not satisfy the driver's license requirement as proper paperwork for crossing into the US. He asked the border agent in disbelief, "you mean you are a US border patrol agent, and you do not know that Puerto Rico is part of the United States? I'm a US citizen!" As recently as 2019, a clerk and her shift supervisor at CVS refused to sell cold medication to a student at Purdue University because he could not produce a study visa even though he presented his US passport (Associated Press 2019). Therefore, a historical summary of the United States' most populous territory deserves some space here.

Puerto Rico, a Possession of the United States

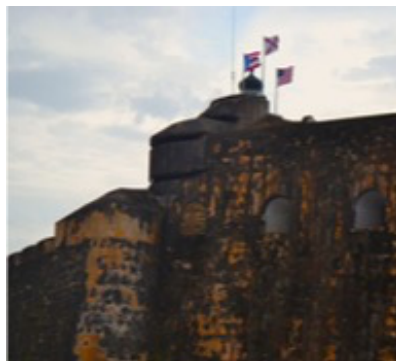


Figure 1. The United States observation point and US flag, installed at El Morro during World War II. The observation point was removed for the 500-year anniversary of Columbus' arrival.

Puerto Rico has been a possession of an imperial country ever since Columbus claimed the Antilles islands for Spain on his second voyage to the western side of the globe in 1493. The Treaty of Paris awarded the island as a war prize to the US in 1898, yet the changeover did not affect the island's status as a possession as prominent politician Eugenio María de Hostos had hoped (Perivolaris 2000, 268). Other Puerto Rican politicians, however, viewed this shift in ownership from Spain to the US as a redeemed rather than a conquered status for the island and an opportunity for Puerto Rico to join "the free world under the enlightened guidance of the United States" (Perivolaris 2000, 267). They believed the US government would grant the island either annexation with full statehood or independence. Instead, years of ambivalence and incongruent treatment followed.

The Foraker Act of 1900 changed Puerto Rico's status with its colonial government from war prize to unincorporated territory. Although residents were not US citizens, they were now liable to Federal taxation—albeit without voting representation in Congress. In 1917, the Jones Act gave Puerto Rican residents US citizenship. In addition to becoming US citizens, eligible males were subject to the Selective Service and to the draft. Over 18,000 Puerto Ricans served in World War I alone (Franqui-Rivera 2018). During World War II, the US military planted its flag at an observation point installed at El Morro, a stronghold originally built by the Spanish as a fort to head off invading attackers (Figure 1). Further work by Puerto Rican activists and politicians to move Puerto Rico towards greater stability as either one of the United States or full independence resulted in a Free Associated State (Commonwealth) status in 1952, little change in voting representation in US Congress, and the island has remained in an

ambivalent and forgotten position to this date (World Atlas).² To summarize: Puerto Rico is an organized US territory. Puerto Ricans are issued US passports (somebody please tell CVS), and a driver's license from Puerto Rico is a US-issued driver's license (attention all Border agents). They conduct business with US currency, and they hold all the rights and privileges that anyone from one of the 50 states holds—except they do not get to vote for the president of the very country to which they belong and serve.³

What does the political history and status of this US territory have to do with hurricanes? Local and federal government concerns about Puerto Rico's political status are often prioritized over the island's day-to-day operations, including emergency preparedness (Soto Vega 2019; Perivolaris 2000, 277; Rodríguez-Cotto 2018, 105, 150). When hurricane season approaches, neither the island's local government nor the Federal government's emergency management agencies are logistically prepared to handle the uncertainties of a disaster as unpredictable as a hurricane.

Hurricane Hugo in 1989: Response, Reports, and Reality

Serious hurricanes have threatened the island before and since Hurricane María. The costliest and most destructive hurricane to hit the island prior to Hurricane Hugo, Hurricane San Ciriaco in 1899, hit the island from east to west with category 4-force winds.

² A summary of Puerto Rican history up to its current-day status as well as commentary on the Puerto Rican politicians who attempted to improve the island's status island after the US took possession of the island is "Popular and intellectual responses to 1898 in Puerto Rico" (Perivolaris, 2000).

³ This exclusion applies to US-born citizens who move to the island as well: I missed two presidential elections when we lived on the island from 1985 to 1995.

The greatest recorded destruction was to farmland. Hurricane Hugo in 1989 was also a category 4 hurricane. The National Research Council (1994) described it as "the costliest hurricane to strike the United States before Andrew three years later in 1992" (Hurricane Andrew did not hit the island of Puerto Rico). Hugo was very similar to San Ciriaco because of its related strength and projected path; the effects were more widespread due to modern power, infrastructure (mainly water supply), and modes of communication.

When I moved to Puerto Rico with my husband in 1985, I learned to adjust to many inconveniences due to island deficiencies and inefficiencies. I learned early in the ten years I lived there how to enact my own autogestión when we experienced daily electrical shutoffs due to an overloaded power company that served the entire eastern end of the island. Every week I purchased drinking water at the grocery store to avoid catching gastroenteritis from drinking tap water. Like all middle-class families, when our children reached school age, we paid out of our pockets (essentially paying twice for their education) to send them to private schools so they would be afforded more educational opportunity than they would have had in public schools. Water from the tap was not potable, the electrical grid was one disaster away from collapsing, and the public schools lacked basic materials, but the cross-island political rallies always went on as planned. Puerto Rican culture prioritized politics in daily life. Friends and family described politics as the national sport. Education comes under the US Department of Indian Affairs, and who cared anyway—our Congressional representative did not have a vote on any committees. Families were often divided along the party line debate: should the island become a state, gain independence from the US, or remain a Commonwealth? When hurricane season arrived in 1989, 21st century technology did not exist. There were no laptops or cell phones connected to the internet to keep up with hurricane weather patterns and predictions. We depended solely

on the information disseminated to us by the newspapers and the evening weather report. We received a warning one day prior to Hurricane Hugo's arrival that a category 5 hurricane was strengthening over the ocean as it approached the island. Ironically, the National Research Council's (NRC) report on Hurricane Hugo later described the mass media's dissemination of WSFO's weather information two days before the storm as "extremely effective" (NRC 1994).

My husband and I, along with everyone else in our family, were taken completely by surprise by the timing of news about the storm. The television weather report hinted at a hurricane approaching, but the day before Hurricane Hugo was expected to make landfall, [a photo of the hurricane](#) appeared on the front page of the *El Nuevo Día* (in English: *A New Day*) newspaper, illustrating the hurricane's size in comparison to the island (Figure 2). Everyone in San Juan scrambled to the grocery store at once on the same day to stock up on non-perishable food, water, and ice. I stayed at home with our one-year-old while my husband ran to the store to grab whatever water, rice, canned goods, and propane he could. He did not want me to go to the store with the baby because he was afraid of people fighting over perishables—and they did. Some fought for a bag of ice using a gun.



Figure 2. Front page of daily newspaper *El Nuevo Día* (in English: *A New Day*), September 17, 1989. The headline reads: "Hurricane

Hugo on a devastating track." The island is circled to show the comparison between the size of the island and the size of Hurricane Hugo, headed towards the island.

On September 18, 1989, Hurricane Hugo made its arrival. Like San Ciriaco in 1899, Hugo was forecast to track in a pattern going east-west across the island. Instead of moving in its predicted path, it struck the northern tip of Puerto Rico, turned 90 degrees north, and hit the US eastern seaboard, most heavily along the coast of South Carolina.

In its report about Hurricane Hugo and lessons learned, the National Research Council (NRC) patted itself on the back about the successful evacuation efforts in Puerto Rico due to what was termed a well-coordinated communication effort between local news media and the Weather Service Forecast Office (WSFO). Its reasoning was that the WSFO "made the *dissemination* of weather products, *not just their generation*, a central part of its operation" (NRC 1994, 68). Even though the NRC report described communication efforts during Hugo as successful, it also acknowledged the opportunities for infrastructural improvement were complicated by cultural and social factors, going so far as to infer that improvements to disaster mitigation on the island would require "changing the social organization of important aspects of Puerto Rican society . . . the lack of programmatic attention to the social and cultural dynamics of societies increases the difficulties in the international transfer of disaster programs" (73).

One example of a lack of disaster mitigation in the NRC report was that the Carraízo Dam had overflowed, ruining all the pumps. This was the main water source to the heavily populated northeastern end of the island, the area most heavily hit by the hurricane. Most residents had only a two-week supply to rely on and no available reservoirs. In our area of Bayamón, no bottled water was available. Our family had two five-gallon bottles of water: one bottle of potable water, one bottle for bathing, and no plan for what we

would do when those ran out. To address this, the NRC cited a need to analyze problems with the Carraizo Dam such as “political factionalism [that] weakens professionalism among public employees . . . violation of the principle of merit based on technical proficiency . . . and existing land-use pattern regulations” (78). However, the report acknowledged that the dam’s problems were known to FEMA: “the risk had been known for some time; a FEMA interagency Hazard Mitigation Report had identified the problem at El Carraizo Dam . . . as early as 1985” (118, 120). From local news reports, we learned that a supervisor had left technicians in charge of shutting off the pumps if the dam overflowed—but he took the keys to the control room in his hurry to get home to his family. The technicians had no way of calling him because the phone company ran on electrical power that was shut off as a safety measure right before the hurricane arrived. Doesn’t sound like the result of political factionalism to me. Oversight and error, maybe, but not political. In addition to chiding the island for failure to properly maintain the water supply (which was not the reason the pumps failed—the dam had overflowed onto the pumps), the NRC also made sure to comment on electrical power lines that should not have failed so broadly under areas where wind did not exceed 81 mph. It blamed local government efforts for failing to prevent severe damage to the electrical grid as well as making it harder to restore power once the hurricane had passed (136-137).

I remember all of this very well, and to that I say, so what? We had a one-year-old child to care for. Bayamón needed water and electricity, and no Federal agency brought any kind of assistance to our area. If there had been any FEMA aid in our neighborhood, I would have been the first in line to accept my tax dollars at work. Instead, we were all left to our own resources. It also irritates me that in the same report on the effects of Hurricane Hugo in South Carolina, the NRC recommended that a change in social and cultural aspects in Puerto Rico would improve disaster response on

that island (161) but did not make the same recommendation for improved disaster response in South Carolinian society.

After the hurricane was over, all phone landlines were down because the phone company had no power. We had no communication with anyone on the mainland or on the island until they could start up their generators. The NRC report states that "important lifeline systems . . . including telephone lines were out as a result of downed [electrical] poles . . . phone service was not restored in the Virgin Islands (also a US territory) until December or March of 1990 (NRC 1994, 3), but "telephone systems performed well during and after Hugo" in the Carolinas (10).

Electrical repairs after Hugo took nearly three months to be restored at the sacrifice of several linemen's lives. I learned how to cook our daily meals in the morning on a coal barbeque grill, prayed the food that was slowly defrosting in the refrigerator would last until stores opened, and made two five-gallon bottles of water last the full ten days that the state-run *Compañía de Acueductos y Alcantarillados* (Water and Sewage Company, in English) was out of commission while it waited for the pumps to dry out or for the new parts to come in from Japan, whichever came first. The neighborhood banded together to share food, water, and generators,⁴ but I felt as though I was missing something: everyone kind of accepted this predicament we were in as "the way things are here," just as they did the constant brownouts, cronyism in the educational system, and politicized everything.

Years later, Puerto Rican journalists and scholars have contended that the social, political, and racialized dynamics in Puerto Rico contributed to local government failures during and after

⁴ *Imagine three or four homes on one street plugged into a single generator.*

Hurricane María. Federico Subervi-Vélez, Sandra Rodríguez-Cotto, and Javier Lugo-Ocando (2021) reported in *Journalism in Times of Crises* that there “is an abundance of polarizing and anti-press rhetoric encouraged and disseminated via social networks, trolls paid with public funds, and by particular government-connected individuals through their pundits on particular radio programs (71). In a study of non-profits operating in Puerto Rico post-Hurricane María, García and Chandrasekhar (2020) found that although FEMA was unprepared for the widespread impact of Hurricane María, the people “expect[ed] for the [local] government to be there” (69). In typical showboating fashion, “the administration of then Governor Ricardo Roselló . . . utilize[ed] social media detailing recovery efforts” but, after Hurricane María, “the head of emergency management made a statement to the press asking citizens to stay calm and wait because there was not working government, and there wouldn’t be for several days” (Bonilla 2020, 5). In her logbook *Bitacora de una Transmision Radial* (*Logbook of a Radio Transmission*), local radio journalist Sandra Rodríguez-Cotto (2018) expressed her frustration with the local and Federal governments upon confirmation of local merchants who appropriated humanitarian aid intended for hurricane survivors: “the incompetence of our political leaders and the laissez-faire attitude causes more chaos every day” (78, translated from Spanish).

Social, cultural, and political dynamics aside, Puerto Rican residents deserved more from its colonial government than a slap on the hand about local government failures after such a terrifying event. As Horton would have said, an island full of human beings is still an island full of human beings . . . no matter how small.

The 2017 hurricane season

Residents were better informed about impending Hurricanes Irma and María in 2017. They had the technology to warn them days in advance, giving them time to prepare their homes and families. However, communications towers were already weakened from Hurricane Irma, and María damaged them beyond use. People flooded the highways in search of cell phone signals so they could communicate with somebody, anybody in their families on the island or on the mainland alike, not knowing that the island’s electrical grid and all the satellite towers on the island had been destroyed. As illogical as it may have seemed to get themselves stuck in a traffic jam, one of their first actions as human beings, of course, was to communicate (Figure 3).



Figure 3. Hurricane Maria survivors crowd the highways looking for cell phone signals.

Asking for Help After a Disaster

US government agencies are bound by the laws and charters that govern how and the extent to which they intervene in disaster response; however, even these laws have gray areas which must be

examined when those agencies fail to render the kind of assistance deemed necessary and proper to a vulnerable population after a disaster (Maya-Murray 2019). In the Robert T. Stafford Disaster Relief and Emergency Assistance Act, US States, territories, and tribal governments have the *option* to pursue disaster relief assistance (FEMA 2016; Maya Murray 2019). As I learned in an interview with an Air Force Combat Search and Rescue helicopter pilot, Federal agencies cannot send aid until the state, territory, or tribal territory requests it in writing. In his words, “we can’t just swoop in and save the day. We have to wait until the state or territory requests our help” (personal communication, March 2, 2021).

After Hurricane María hit Puerto Rico, the local government exercised its option to request disaster relief assistance from corresponding US government agencies. Although the Federal Emergency Management Agency (FEMA), US military responders, and the Puerto Rican government set up operations at the Puerto Rico Convention Center, one journalist reported that military responders arrived eleven days after landfall (Meyer 2017). This First Base of Operations (FBO) occupied about three-fourths of the Convention Center (Palmer 2018). The remaining rooms in the Convention Center were occupied by two employee groups from the US: employees from private companies who had arrived to check up on their clients, as well as US-based contractors, who traveled to help Puerto Rico recover from the disaster—electricians, for example. However, relief efforts did not begin until at least ten days after landfall because the airport was filled with debris. It was a logistical nightmare (Meyer 2017; Becker 2017).

A preliminary information-gathering interview for this essay provided me with some insight into what was perceived by many as dawdling by the US disaster response agencies (Meyer 2017). A businessman who was present at the Convention Center FBO explained that he was on the island because the mainland-based

company he worked for makes and installs home and small office solar panels. One of their satellite offices is in Puerto Rico, where they support many businesses as well as individual customers. He had arrived on the island to provide support to his company's local offices ten days after the storm, learn what kind of damage their clients had sustained, and assess warranty claims. He is also a retired naval officer with experience in supply logistics acquisition—one of the commodities he had worked with was bulk fuel. He related to me his feelings of frustration after attending a meeting for response planning:

I was staying at the hotel that was the command center . . . someone found out I had a background in fuel logistics. While I was there, I was asked to attend some of the response planning . . . and what I found was that no one there from the government, from the governor on down, really knew how to organize a response. They did their best: no one had ever really done this before; nobody ever really had any training. They had one of these sub-team meetings on fuel acquisition, which I was asked to go into because of my background. [FEMA officials told me] "if there's anything you can do out of those meetings, it's [get us] written requests because our charter does not allow us to draft a request to ourselves" (personal communication, December 12, 2019).⁵

Written requests aside, climate change continues to be a "wicked problem" (Cagle and Tillery 2015). The earth's climate will continue

⁵ *There are several possible explanations for this scenario. One could be the cultural tensions between high and low context. Puerto Rico has a very hierarchical political structure, and someone was probably waiting for someone higher up the food chain to make the request. The businessman followed up his story of that incident by saying that in the end, he had to walk someone to the computer, tell them what to type up, walk them to the printer, and get the request signed.*

to change and threaten the conditions that 21st century digital technology requires in order to function properly: electricity, cell phone towers, satellites, and (in general) dry land. When weather destroys all sources of digital communication, how will the residents of a colonized territory react? Will they wait for the local and federal government to “swoop in and fix everything”? When Hurricane María hit the island of Puerto Rico in September 2017, all satellite towers on the island were either damaged or destroyed, prompting radio stations and ham radio operators to devise ways to help residents contact each other by networking with the radio audience and with first responders. This article explores how Puerto Ricans employed self-resilience, moved themselves to enact *autogestión*, and thereby stretched and extended current definition of tactical technical communication into adroit citizen planning by employing whatever is available in absence of the twenty-first century communication devices that depend on a stable environment.

Shifts in Defining Tactical Technical Communication

In 1984, Michel de Certeau described the common people’s tactical approaches to communication as the “art of the weak” (xiii)—a military strategy in a context of victory over the opponent, a cunning move that can be victorious in war (37). He examined users as weak consumers, representative of the common man, who use tactics to manipulate communication produced by an elite group or a group in power. One example he provided for the common man as consumer was the way Indigenous natives consumed and tactically manipulated the Spanish conquerors’ prescriptive use of language, which they could not understand but were obligated to accept (xiii). Miles Kimball (2006) noted de Certeau’s distinction between prescriptive strategies and hands-on tactics as he analyzed how tactical technical communication occurs when a user feels

helpless in a postindustrial world. He studied the ways people communicate "outside, between, and through corporations and other institutions" by examining how users countered a feeling of helplessness when reading automobile instruction manuals crafted by the institution or organization (67). Users who manipulated the manuals and produced their own versions of instructions on automobile repair became in the process users as producers, practitioners, and citizens (70). Indeed, in a DIY world, who among us hasn't saved a little money by searching homemade YouTube videos on how to replace their car's sideview mirror or looked up chat boards to ask a question about how to use a piece of software?

Nearly two decades have passed since de Certeau developed his theoretical framework on tactical technical communication. Since then, digital forms of multi-modal communication, especially social media, have expanded globally due to the increased number of telecom space satellites. As users are afforded greater global access to the internet, they are also afforded a greater network of possibilities in disaster response. Liza Potts (2014) published research on three cases of users and participants' social media practices in disaster response: Hurricane Katrina and the London bombings in 2005, and the Mumbai attacks in 2008. After Hurricane Katrina struck New Orleans and the Houston area, survivors and their friends and families attempted to use Craigslist to communicate. Although the data did not move as seamlessly as they had hoped, it was a social media-like step towards disaster response. When four suicide bombers coordinated attacks on the London transportations system in July of 2005, commuters used survivors' cell phone videos of the attacks to determine which areas to avoid in the city. Just three years later after the Mumbai attacks on the Taj Mahal in 2008, participants accessed and exchanged data about areas of attack on Twitter (Potts 2014, 55).

There are two differences between each of the previous events and the Hurricane María event, which prompted Puerto Ricans' tactical technical communication practices. One difference is that participants in Hurricane Katrina, the London bombings, and the Mumbai attacks could manipulate a variety of genres amid complex communication situations because they could depend on a network of possibilities: satellite towers plus the electricity to power them. The other difference is that the Hurricane María event occurred on a US territory that has been historically forgotten by the US government.

Four Ways to Communicate Without Cell Phones or Internet

Hurricane María was an island-wide disaster. The general population had no more lifelines right after Hurricane María in 2017 than we had in 1989 after Hurricane Hugo, but this time they enacted more community reliance. Residents cobbled together various ways to communicate, resisting the dominant narrative after the storm that characterized Puerto Ricans as “lazy and dependent” (Soto Vega 2019, 39) and US news reports depicted a “powerless people” (Llorens 2018, 137). On the contrary, those *jíbaros*—a term used as derogatory by the criollo elite class to mean low-class but really means the people from the farming communities, the agricultural backbone of the island—formed their own rescue operations (Rosa-Rodriguez 2019, 62) and connected “through satellite telephony, community radio, and our social networks” (Massol-Deya 2019).

So how exactly did people cobble together, or *bricolage*, communication with each other when all prescriptive forms of communication were unavailable? To borrow a metaphor from Michel de Certeau (1984), they substituted [communication] ingredients to achieve a final product that may not have been exactly what the dominant social order (local and federal

governments) had intended, yet it still resulted in something the dominated group could consume (xiii). The general public did not have the luxury of waiting until the two governments figured out what to do first (Bonilla 2020, 5). They needed to communicate with their families, and many needed to contact first responders for medical assistance. Below I describe four ways Puerto Rican residents crafted their own ways of communicating after Hurricane María.

Analog Radio Equipment Worked

WAPA was the only radio station with capability to continue broadcasting throughout the entire storm and afterward. Owner Wilfredo Blanco Pi and his son Jorge Blanco credited their station's continued broadcasting capabilities to the microwave analog radio system they used at their station at a time when all the other radio stations on the island had done away with the old equipment and upgraded to fiber optics and digital systems. The Blancos had first honed their radio engineering skills and expertise in Cuba, where they learned the value of analog equipment. In her logbook, Rodríguez-Cotto (2018) explained why the Blancos could make those decisions: because they own their radio station, they could decide to keep the old equipment compared to the other radio stations owned by franchises (163-164). She and the Blancos worked non-stop to relay messages for people who called in on landlines or dropped written messages on their doorstep, some to let their families across town or across the island to know they were ok, or others who needed to report medical emergencies to the Red Cross. WAPA radio also connected callers with a therapist for emotional comfort (Figure 4) (Rodríguez-Cotto 2018, 37). Diasporic communication was no respecter of persons, either: five days after the storm had passed, Supreme Court Justice Sonia Sotomayor reported she had not heard from her family in Puerto Rico (Zezima 2017).

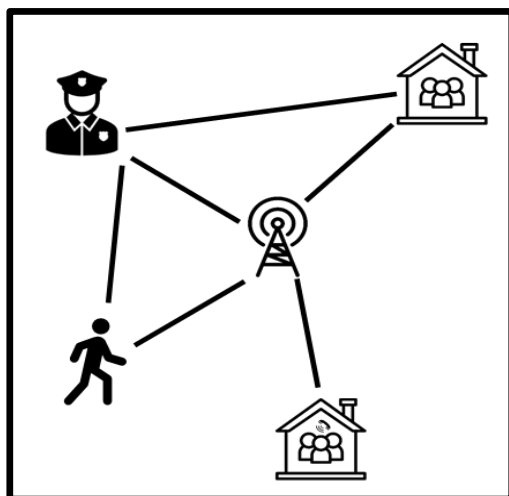


Figure 4. WAPA 680Am connected survivors at home with each other and to first responders.

Ham Radio Networks Connected

In addition to the WAPA radio station's old-fashioned engineering capabilities, local ham radio operators worked with first responders who had lost their own wireless communications systems due to the storm. They relayed information to police and paramedics about survivors' medical needs, rode along with police and transmitted police calls to other ham operators stationed at the command centers, and helped coordinate fuel deliveries to power company generators as well as medical supplies to hospitals (Figure 5). In an island-diasporic collaboration, ham radio operators also relayed messages to families who lived on the mainland. Tom Gallagher, CEO of the American Radio Relay League, was proud to say, "it is incredibly gratifying to see that we can be of service to other Americans far away" (Becker 2017).

Transistor Radios Made a Comeback

Residents in the coastal city of Mayagüez quickly learned that a \$5 battery-operated transistor radio was more useful than the latest model computer, cell phone, or flat-screen TV as they gathered around the radio for evening entertainment and news after the storm (Bell 2018). In Mayagüez, radio station WKJB 710 AM came back with a group of DJs dubbed “The Night Crew.” They broadcast in the evenings to report on repair progress after the storm and provide some entertainment and sense of community to their listeners (Figure 6).

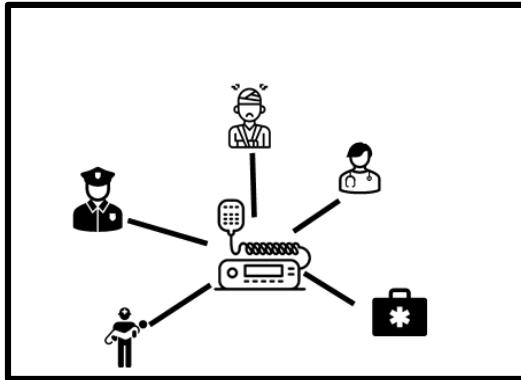


Figure 5. Ham radio networks connected survivors and first responders.



Figure 6. “The Night Crew” Reporting

Messages in the Street Cried Out

Some towns did not have the luxury of ham radio operators or a radio station to request assistance with food, water, and other aid. They resolved their communication issues by laying out signs using rocks and paint, creating signs large enough for small plane pilots to see from the sky and relay to the local government for help (Figure 7) (Díaz 2017).



Figure 7. Humacao residents made a street sign to communicate with search planes. This sign reads in Spanish “S.O.S.: We need water and food.”

An Enactment of Resilience Enacted Change

Communication Empowered the Hard Work of Change

Regardless of US journalism that depicted a powerless people waiting on a colonial government, the common people got to work rebuilding and re-beautifying the island (Llorens 2018; Rivera Martinez 2020). In spite of FEMA officials who “decided to take advantage of the precarious conditions of our electric power grid and ... enrich themselves illegally” (Zapotosky, Hernandez, and Mufson 2019) and awarded contracts for meals that were never delivered (Santiago and Shah 2018), communities formed soup kitchens, delivered meals to areas deemed unreachable by the military, and responded to calls for cleanup and tarp placement

although FEMA refused to pay island private contractors for their work.⁶ Yarimar Bonilla (2020) puts it well:

They say it takes twenty-one days for new habits to cement. The great majority of Puerto Rican[s] spent well over a hundred days without electricity, running water, traffic signals—without the invisible infrastructure of daily life. . . . Being forced to self-rely became ingrained. (15).

Hurricane María was the final blow on top of the many injustices the “common man” had to endure from its colonial government and the white elitist criollo local government. Below I list just a few examples of ways that empowerment surged from that disaster, and opportunities for further research.

Increased Entrepreneurship

Entrepreneurship was expected to decrease, not increase, after Hurricane Maria. Just the opposite—in an essay for the Center for Puerto Rican Studies, professors from the University of Puerto Rico researched data on Puerto Rico’s entrepreneurial dynamics post-Hurricane María. The authors indicate that an analysis of data before and after the hurricane attests to the growth of entrepreneurship on the island after Hurricane María, which “could be evidence of the increased resilience of entrepreneurs after the hurricane experience” (Lobato, Alvarez, and Aponte 2020, 55). Also called “disaster entrepreneurship,” business models adapted to post-Hurricane Maria Puerto Rico. In 2020, the island adapted again to COVID-19 conditions, demonstrating that this

⁶ CERES, an environmental cleanup contractor that called for local companies to do place tarps and do cleanup, collected fees from FEMA but never paid its subcontractors. CERES owes my in-laws over \$50,000 for placing tarps and doing cleanup work.

resilience was not a one-time event; it had, as Bonilla (2020) suggested, “become ingrained” (15).

Toleration of Political Practices

Post-Hurricane María political culture in Puerto Rico seems to have shifted from my lived experiences. Political showboating, an acceptable practice when we lived on the island, occurs often at the expense of the politicians’ constituents. One of the reasons for the ten-day delay in getting the airport tarmac cleared was a prioritization on press conferences (personal communication December 12, 2019; Rodriguez-Cotto 2018, 61; Meyer 2017). Shortly after making a statement asking citizens to “stay calm and wait,” the head of emergency management went on vacation (Bonilla 2020).

San Juan Mayor Carmen Yulín Cruz experienced a shift from acceptable showboating to a tipping point in how Puerto Ricans view the politicians they elected. She may have been the media darling in the States when she set out on a photoshoot of herself aiding hurricane victims, but this type of political behavior, approved in past elections as an acceptable tactic, proved to be a miserable failure at the next elections. Cruz came in last place in the race for mayor, including her own party (Meyer 2017; Rodriguez-Cotto 2018, 75, 105, 148; Chakraborty 2018).

Social media has changed everything

Governor of Puerto Rico during Hurricane María, Ricardo Rosselló, was forced to resign two years into his tenure when a group chat between him and eleven other local government cabinet members was made public. In the chat, the governor and cabinet members made misogynist and homophobic comments as well as mocked hurricane survivors. They soon learned that group chats are not entirely private, and the 900-plus pages of chat between the governor and cabinet members were made public.

Young and old took to the streets to call for Rosello's resignation and that of the eleven cabinet members (Rivera Martínez 2020).

The island's younger generation is becoming more aware of the local government's lack of transparency via the increased use of social media and choice of web-based news delivery over local TV channels (Subervi-Velez, Rodríguez-Cotto, Lugo-Ocando, J. 2021; Arrigoita 2019; Pinchin 2019). As one of my interview participants (who has lived in Puerto Rico all of her life) put it, "young people just don't tow the party line anymore. Social media has changed all that" (personal communication November 18, 2019).

Social media influencer and media journalist Lorenzo Torres Delgado, El Leon Fiscalizador, (in English: The Watchdog) opened a Facebook page in 2018 to make voters aware of the lack of local government transparency in regard to Federal aid on the island. His goal from the beginning has been to influence voters during elections: to elect true civil servants who will work to improve Puerto Rico as a whole (personal communication with Lorenzo Torres, 2021). Facebook temporarily blocked his page in early 2020 after he posted videos of abandoned warehouses full of damaged relief supplies intended for Hurricane María victims in Ponce (Subervi-Velez, Rodríguez-Cotto, Lugo-Ocando 2021, 77).

The heroes who worked to connect the island after the storm were the jíbaros, the "ordinary man . . . the common hero [who] does not expect representations" (de Certeau 1984, dedication). They are the Puerto Rican radio journalists who stayed awake during the storm and in shifts for days afterward, the ham radio operators who left their families to tend communication stations and assist police and other first responders, the people who painted signs in the streets (and many others whose tactical efforts are not mentioned in this essay).

Enactments of self-reliance and resiliency in communication after the disaster replaced the sense of complacency and government dependency I had observed during my ten years on the island. The day after Hurricane Hugo hit Puerto Rico, we had no idea how bad it was for everyone else. The only phones we had were landlines, and those were all down until the phone company generators started working (it took at least a couple of weeks, from what I recall). All we knew was what was in front of us and next door. We all banded together as neighbors and helped one another out, but we had no idea how Jose's sisters and mother were doing, and we had no way of contacting them. We just had to wait. Sound familiar? Hurricane Maria was just the last straw.

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Illustrations

Figure 1: US observation point with flag at El Morro https://upload.wikimedia.org/wikipedia/commons/e/ed/San-felipe-del-Morro-observation_point-WW2.JPG In the public domain.

Figure 2: El Nuevo Dia newspaper, September 18, 1989. Print.

Figure 3: Looking for cell signal. <https://www.theatlantic.com/photo/2017/09/disconnected-by-disasterphotos-from-a-battered-puerto-rico/540975/>

Figure 4: Diagram of WAPA Radio 680AM networking with first responders and hurricane survivors

Figure 5: Diagram of Ham radio operators networking with first responders and hurricane survivors

Figure 6: Listening to the radio in the evening, like the old days

Figure 7: One example of a town crying out to search and rescue planes passing overhead.

About the Author

Dina Lopez is a PhD candidate in Technical Communication and Rhetoric at Texas Tech University in Lubbock, Texas. Her research is on intercultural communication, organizational studies, storytelling, and rhetorical analysis of archives.

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