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## Social Media Flooded with Rescue Requests During Hurricane Harvey

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# Social Media Flooded with Rescue Requests During Hurricane Harvey

Alison Valach Greenhalgh

December 2018

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## **I. Introduction**

Hurricane Harvey wreaked havoc upon the city of Houston, and it was heartbreaking to watch this horrific event unfold. Yet, it was incredible to see how successful many of the civilian rescues were during Hurricane Harvey, and it was impressive to see Houstonians rally together via social media to help people they did not even know. There were so many stories about people calling 911 and other emergency numbers but not being able to get through to ask for help because the lines were so backed up, and this is when people turned to social media, such as Facebook, to ask for help.

According to the National Hurricane Center, parts of Houston were drenched by more than 44 inches of rain from Hurricane Harvey. This massive amount of rainfall in a short timespan resulted in widespread flooding across the city of Houston. The flooding caused tens of thousands of Houstonians to have to evacuate their homes for safety reasons, but the only way people could rescue these victims was by using boats. Emergency phone lines were jammed from all of the incoming calls, so people had to get creative to let others know they were in need of help. People publicly posted their addresses as well as addresses of other people who needed help on social media. Social media was critical for connecting people who did not know each other in order to help.

Social media was used during Hurricane Harvey in a different way than it had previously been used in other disasters. Through the examination of two case studies, I was able to uncover important information related to the success of social media aiding civilian rescues during Hurricane Harvey. First, neighborhood networks on social media were vital for people to be able to connect. People who utilized social media effectively during Hurricane

Harvey discovered they were not able to successfully connect with local people in other locations during other disasters, which prevented them from being as effective and helpful as they were during Hurricane Harvey. Second, there are steps that people can take when they are posting on social media in order to help draw attention to their post during a disaster. By drawing attention to their posts, these people are able to be rescued quicker and help rescuers to find them. Third, people involved in these crowdsourced rescues must be vigilant when confirming information in order to prevent misinformation from being spread. These three critical pieces of information about using social media to aid rescue efforts during disasters are key to creating protocols for people to follow during future disasters. Hurricane Harvey proved social media can be beneficial in aiding rescue efforts during disasters as long as information is organized and verified.

## **II. Timeline**

Hurricane Harvey moved into the Houston area on Saturday, August 26, 2017. On Sunday, August 27, 2017, Harvey stalled over Houston for four days causing widespread flooding. The flooding began in neighborhoods such as Braeswood and Meyerland, but the flooding continued to spread throughout the city, particularly along the bayous. Then, the neighborhoods of Memorial and the Energy Corridor were flooding by the morning of Monday, August 28, 2017 because of a controlled release of the Addicks and Barker Reservoirs.

According to KTRK, “estimates from the Houston Housing Department show 209,422 of the city's 501,721 homes had some kind of damage from the storm, whether by flooding or some other kind of storm damage” (Fox). Hurricane Harvey also resulted in \$125 billion of

damages in Houston according to the National Hurricane Center. With such a destructive storm forcing so many people from their homes, it is not a surprise 911 was flooded with calls. According to a *Houston Chronicle* article, by August 27<sup>th</sup>, the average time to clear emergency calls for high-water rescue was over 20 hours (Harden). This long wait when people desperately needed help resulted in many Houstonians turning to social media to find other ways to be rescued.

### **III. Findings**

My first interview was with Keri Henry. I found out who Keri Henry was from an article *The Washington Post* wrote about Henry and how she worked from her living room to connect rescuers with those in need of rescuing during Hurricane Harvey. Throughout my project, I wanted to utilize social media as much as possible to demonstrate the benefits of social media even when conducting this project. I had never met Keri Henry before, but I sent her a message on Facebook Messenger explaining my project and asking if she would be interested in meeting with me to discuss her work during Hurricane Harvey. She accepted my message request and said she would be happy to meet with me. We arranged a time to meet, and she shared her experience with me.

Henry said she has used Facebook since 2004 and has used it more than any of her friends. She said over the years she has joined neighborhood groups that are for selling and trading and also for exchanging information. These neighborhood groups actually played a crucial role in Henry being able to help coordinate rescue efforts during Hurricane Harvey.

For Henry, the interaction on these neighborhood groups regarding Harvey began as Harvey was approaching Houston. Henry noticed her neighbor, who is a car dealer, had a five-ton Army vehicle sitting outside of his home, and she started to wonder if he had the vehicle for Harvey. Once the flooding started in surrounding neighborhoods such as Meyerland, Bellaire and Braeswood, her neighbor posted a photo of the Army vehicle in a neighborhood group with a caption saying he was going to drive around in the vehicle if anyone needed help.

Henry followed the post, and she said the comments flooded in with people asking for help. She said she kept seeing comments saying things such as “please help, here’s my address. Please help, I have an infant. Please help, there’s an elderly couple. Please help.” Henry continued to see all of the comments asking for help on this Facebook post, and she then saw her neighbor returning in the Army vehicle as she was walking back to her house from her parents’ house. She asked her neighbor and his wife what was going on, and they informed Henry they were not able to help anyone, and he almost flooded his five-ton. He said they needed boats, and no one could get to these people without boats.

Henry said she was at a loss for how she could help, but she was watching the news and had seen all of the emergency numbers. She said she spent the rest of the afternoon writing down all of the addresses and names from the comments section on her neighbor’s post in the neighborhood group. Henry’s reasoning was if she were able to get through to one of the rescue numbers like 911 or the fire marshal, she could give them addresses of people in need of help because she knew many of these people probably had their phone batteries running low and could not get through on the emergency lines. She said she did not know these people, but she saw these posts on Facebook and wanted to help in some way.

How important these neighborhood groups were to Henry being able to interact with people and coordinate rescues was emphasized when Henry tried to coordinate rescue efforts in North Carolina during Hurricane Florence. Henry said she was not a member of neighborhood groups in North Carolina like in Houston, so she was not able to connect with people. Henry said the main issue was that she was already a member of neighborhood groups on Facebook in Houston, and she tried to join neighborhood groups in North Carolina, but no one would add her to the groups. Without being in these neighborhood groups, she did not have a way of seeing the addresses posted by people needing to be rescued. Even though Henry was not able to help like she wanted to with the hurricane in North Carolina, she still considers social media like Facebook to be useful for locals during disasters.

During Hurricane Harvey, Henry turned to Facebook for more help than just posting in neighborhood groups. The important piece of information about how people can use specific steps to draw attention to their posts was uncovered when Henry began posting on Facebook. She said she made a post asking who had boats in Houston and also if there were people outside of Houston who were willing to come to Houston with their boats. She said Facebook had started implementing the background colors for posts recently before Harvey, so she made all of her emergency posts during Hurricane Harvey in red and white to attract attention. Henry said she made the post public, so that people could share the post. After she made her post on Facebook asking for boats, she began acquiring a list of people with boats and phone numbers. She said she was then able to call a boater with a team coming in from Louisiana and give them an address of people in need of rescuing.

Henry also finally got through to the fire marshal, and she told them that she had names and addresses of victims as well as contact information for boaters. She was told that they could not take any of that information because she was not the victim, and they had a list of specific information they needed in order to dispatch a rescue. She said they needed to know the names, addresses, how high is the water, how many people there are, and if there are any medical needs. Henry did not have all of this information because she only had the information that had been posted on Facebook. She said the fire marshal was able to take the information of about five of the 25 people Henry was trying to help get rescued. After offering the information she had on victims, she also tried to offer contact information for boaters because the news had been reporting to call these emergency departments with information about boats and boaters because they needed more boats. However, the fire marshal told Henry they could not take that information, and Henry said she is still learning about all of the liability issues of why the fire marshal could not just send out civilian boats and rescuers.

After calling the fire marshal, Henry said "I realized okay, so I've got to figure out how to make this happen myself." Henry said she did not realize that other people were doing the same thing as her at the same time because she was just focused on helping people connect and find answers on her side of town. She said her friends started seeing her posts on Facebook and asked how they could help. She asked a friend who is good with spreadsheets to create a document with all of her handwritten information and to help fill in zip codes, so she knew exactly where to send rescuers. Henry said as the water began receding on her side of town, people began tagging her in Facebook posts from across town in areas like Memorial asking for her help with rescues over there. She said she was fine with being tagged in these

posts because the rescuers were wanting to keep working, and she needed more addresses to send them to.

One of the rescuers who Henry was working with had also been working with another man who had developed a live Google Document and questionnaire form. She partnered up with them, and she said she no longer had to take addresses or names, rather she could just send the link for the questionnaire form directly to the victim to fill it out. Henry said there was a form she could also send to boaters who were wanting to help rescue, and once they filled out the form, they would be added to the group text message, and they would begin dispatching them.

When asked about how she got all the addresses and whether or not people were concerned to be publicly posting on Facebook their home address, Henry did say it was concerning how people would publicly post their address, and she would share the post. Her friend, who is an attorney, did later tell her to clean up the addresses from her Facebook page. The main concern was that looters would see these addresses and know that people were not in these homes because the homes had flooded. However, Henry also said these people were so desperate and needed a boat to be sent to their address because they were sitting on their countertops, having to put their kids in the foul water filled with filth, snakes and fire ants.

Henry said she did not track the number of hours she spent on her efforts, but she worked from Sunday until Thursday with just a few hours of sleep each night.

“I know I started like Sunday until like Thursday, and I remember I put a post up,” Henry said. “I think it was like Sunday night I think I slept for maybe two hours, and then Sunday morning, I got up because at a certain point I'm like okay I need to figure out what is happening

overnight. So after all that, I was on a group text with my team, and it just was nonstop, and I couldn't sleep with these guys needing to know where to go.” She said once the city enforced curfews, it meant that things would quiet down for a little bit each night. However, there were still boaters wanting to work, and Henry said her friend in Hawaii would actually track information for Henry while she slept.

Henry also said she did not have an estimate on how many people she helped, she just knew that she was working with 39 boat teams, and there were one to four boats on each team.

It was not difficult to find people who were willing to help, Henry said, because there were so many volunteers who wanted to help with the rescues. Henry was sending the same link to people who needed help to people who were also willing and able to help. She said she had an amazing number of people who were volunteering, and she said that is what Houston and Texas are all about.

Prior to Hurricane Harvey, Henry said she had really used Facebook just for social and business purposes. When asked if she views social media differently after seeing how beneficial it was during Hurricane Harvey for rescue efforts, she said her view had for sure changed.

“I stood up when all of these attacks came out on Zuckerberg recently,” Henry said. She also said she has been wanting to talk to someone from Facebook to share her ideas regarding features that could be used to help in future disasters. She said what she was envisioning was similar to the Crisis Response function that Facebook launched shortly after Harvey. However, she thinks it still needs improvement, and one of the main issues is that people do not know how to use it, so they are not using it. Henry also said she thinks the Crisis Response on

Facebook should have around-the-clock volunteer nurses available in Messenger to answer questions, and she thinks that it could be useful to have off-duty police officers or someone available to communicate via video with victims waiting in their houses to be rescued. She said this person on the other side of the video could work to calm victims down and also help to ask questions about them getting out of the house or figuring out what resources or tools they have available until a rescuer can get to them.

My second interview was with Matthew Marchetti, one of the founders of CrowdSource Rescue (CSR). CSR uses technology for mapping where people are that need to be rescued as well as where rescue boats are located. It also helps boaters find out where they are being sent to help people in need. The way that CSR works is that people can create a ticket online with the information of where they are needing to be rescued from and rescuers can then see these tickets to determine where to go help.

CSR was created in the middle of Hurricane Harvey in order to help with rescue efforts. Marchetti's journey with rescuing during Hurricane Harvey began when he joined members from Chapelwood United Methodist Church who were in boats trying to rescue people. Marchetti then began working with the senior pastor of Chapelwood, John Stephens, to try to coordinate rescues on Facebook. Marchetti said a lot of people were talking to him on Facebook, and a lot of people he did not really know were calling him, and things started to get really complicated.

Marchetti said he spoke to his best friend and business partner, Nate Larson, and they talked about quickly creating a website to help organize the rescue efforts for Chapelwood. Marchetti said they created the CSR website in about six hours while Harvey was still hitting

Houston. Marchetti said, “it's very dramatic, like lights are going off and on, and the windows are kind of shaking, and the office starts flooding at one point.” He said they made the website and went to bed around 6 a.m., and when they woke up at 9 a.m., they found that 1,500 people were in need of rescuing. Marchetti said he did not know how they were going to make everything work because they only had three boats at the time, which was obviously not going to be enough to help 1,500 people.

However, Marchetti said as the day went on, more people were requesting to be rescued but also more people were signing up to help rescue with boats. He said they had no master plan when they created CSR, but people just started organizing around it without any direction from anyone. He said they made the app to dabble with and thought maybe 20 or so people would use it. However, people spread the word about CSR quickly. Marchetti said his cell phone number was put on the original CSR site, and he had received 3,500 calls by the second day. He said people were posting his cell phone number, and it was going viral to call this hotline if you needed help, but it was not actually a hotline, rather just his personal cell phone.

He said Facebook was a central point where they started organizing though, and they created a CSR Facebook page that Tuesday. He said people were creating tickets based on posts they saw on Facebook by people who needed rescuing, and then rescuers out in the field were using the app to find where these people were. Marchetti said people were requesting tickets on behalf of people they did not even know just because they saw their posts about needing help on Facebook.

Prior to the creation of CSR, Marchetti said he made a post on his personal Facebook page that Monday night saying how badly they needed help. He said he received dozens of responses, and he utilized Facebook Messenger to delegate tasks to people who were offering to help. He also used his personal Facebook page to post when someone would call in with a problem. He said he would wait to post until after they confirmed it was definitely a real problem and not a rumor or misinformation, but it was a great way to let people know what was going on and find people who could help. Marchetti said they eventually began posting on the CSR Facebook page as it gained followers. The CSR Facebook page gained 1,000 followers the first day, then 3,000 followers and by that Wednesday, the page had 10,000 followers.

Marchetti said he used Facebook before Hurricane Harvey, but as a consumer, not a contributor. He said he would get on Facebook constantly and see what everyone else was up to, but he never posted anything. He said he liked Facebook, but he mainly did not post because he would see posts from people saying what they were eating that day, and Marchetti said most people would not care to see posts about mundane happenings in his everyday life. However, his aversion to posting ended when he realized how much help was needed with the rescue efforts for Hurricane Harvey. He said he was posting probably about every hour, and he thought it was an amazing way to interact with a lot of different people. While the rescues were happening, Marchetti would do a daily update post, and he said he made all of his posts public. They were all shared a couple hundred times. Marchetti referred to his Facebook posts as a “rally speech.” Marchetti also said that Facebook is “where everything really happened” when it came to Hurricane Harvey rescues and CSR.

When asked about tips regarding the use of social media with other disasters, Marchetti said it is important to ignore the people who are talking on social media who are not in the disaster. He said these people do not have direct knowledge and are just repeating what they have heard, which could have been made up to begin with. This issue of misinformation was a challenge that Henry also faced.

“I had that happen to me, where I got bad information one time,” she said. “When that happens, people really tend to stop following or interacting or trusting you. So, somebody said the dam had broken, so I had put up in red and white that the dam had broken. Well, what happened was an uncontrolled release. So they have a controlled release and an uncontrolled release. So my boat, like Taylor was on the water and felt he almost capsized because he thought the dam broke. Everybody else thought so too, but they didn't realize it was a totally crazy uncontrolled release. So, when I posted that, people were like, ‘fake news, fake news, fake news.’ I immediately deleted it and made another post that said, ‘I'm so sorry, everything has been accurate up to this point. I'm going to bed now.’”

Based on the experiences of Henry and Marchetti, it is important that people who are helping with these crowdsourced rescues are diligently checking and confirming information. This will result in less false information being shared and spread. This false information can draw attention away from actual rescues that are needed, so it is important to confirm information before sharing it when utilizing social media to help in a disaster.

Even with the drawback of potential misinformation being shared, Marchetti said social media is extremely helpful when interacting directly with citizens who are in need of help or are

willing to help. Marchetti said Facebook is “extremely, extremely liked” by CSR because everything for CSR happens on Facebook.

Marchetti said Facebook helped spread the word about CSR during Harvey, but the platform has been even more critical for spreading awareness about CSR in other disasters. CSR will run Facebook ads for vulnerable populations ahead of a disaster, but they did not do that with Harvey, since CSR did not exist prior to Harvey. Marchetti referred to social media as an accent to CSR because he said the rescues could not have been done with social media alone, rather they also needed the maps of the rescues plus the database of the rescuers that were available on CSR.

“At the end of the day, what disaster response is really -- it's not boats, it's not fire trucks, it's not rescuers or anything like that; it's information,” Marchetti said.

Based on these interviews, the protocols for people in need of rescuing as well as those who are available to rescue others will be created based on the three important pieces of information gathered from these interviews. These protocols will address the importance of neighborhood groups on Facebook, specific steps to draw attention to an emergency post and aim to decrease the amount of misinformation spread during a disaster.

In addition to the protocol for victims in need of rescuing and the protocol for civilian rescuers, there are suggested additions to make Facebook even more helpful during emergencies and disasters. These suggestions are necessary for social media, specifically Facebook, because without these additions, Facebook will remain about the same level of helpfulness as it was during Hurricane Harvey. I am focusing on Facebook because after

speaking with Marchetti and Henry, it appears that Facebook was the most useful during Hurricane Harvey.

#### **IV. Background**

Many news sources wrote about the use of social media during Hurricane Harvey to aide rescue efforts. However, few of these news outlets published information regarding how exactly social media was used to help rescue efforts, and instead, focused on the cries for help published on social media. In an article *TIME* published, it said “in some cases, these calls for help went viral, attracting attention far beyond the typical call for help” (Rhodan, p.2). The *Wall Street Journal* published an article titled “Hurricane Harvey Victims Turn to Social Media for Assistance.” This article highlighted Houstonians who were using social media to post their full addresses on social media platforms Facebook and Twitter “in hopes their messages would be shared widely and eventually answered” (Seetharaman, Wells p. 1). This article shared specific examples of posts people made on Facebook and Twitter asking for help, but it lacked information regarding how these people in desperate need of help connected with rescuers on Facebook.

According to *TIME*, “rescues like that led George Washington University media professor Nikki Usher to call Hurricane Harvey ‘the first major natural disaster of the social media age’” (Rhodan, p.2). This article began with hashtags used asking for help along with a Tweet asking for rescuing. The remainder of the article focused on information about fake information shared via social media and also how the Houston Police Department and the U.S. Coast Guard continued to tell people to call 911 rather than use social media in order to be rescued. *Texas Monthly* also published an article about the use of social media during Hurricane Harvey, but

the focus of this article was “how social media managers from the National Weather Service, Brazoria County, the Harris County Sheriff’s Office, and Tyler County Emergency Management weathered Hurricane Harvey online” used social media rather than civilians (Oyeniya).

CNN published an article listing several ways in which social media was used during Hurricane Harvey including “they tweeted their addresses to emergency officials. They organized rescue missions through Facebook groups. And they posted harrowing pictures to emphasize just how high the flood waters were” (Stelter). Even though rescue missions organized via Facebook groups were mentioned at the beginning of the article, no additional details were included pertaining to these rescues and how they were organized on the Facebook groups. The article included additional information about people posting in need of help, local officials posting updates and details about photos posted showing the devastation.

Two of the most helpful news articles for this project were ones including information about the selected to interview. *The Verge* wrote about Matthew Marchetti and his co-founding of CrowdSource Rescue. “Marchetti and Larson built a web-based geolocation service that collected data from social media, centralizing and visualizing the calls for help. It became a clearinghouse for volunteers and their boats, who could then be dispatched to help with rescues,” the article said, indicating Marchetti was a person who helped firsthand with social media and rescues (Duffy). In addition to utilizing social media for creating the app, “the site gained traction as it was shared across social media and through word of mouth” (Duffy).

*The Washington Post* wrote an article about Keri Henry, a local Houstonian who helped organize rescues on social media. “Henry grabbed a notepad and began scratching down details, thinking she would connect the people in trouble with other Facebook users offering

boats and high-water vehicles. Within hours, the 36-year-old freelance food stylist was running a one-woman command center from her sofa,” the story said, indicating Henry was greatly involved with social media rescues on Facebook (Sullivan, Holley). Even though this article introduced Henry, it did not go into specific details about how she utilized Facebook neighborhood groups in order to make this all possible. Instead, the article included information about how technology made all of these social media rescues possible in comparison to previous storms.

Although the media did acknowledge and publish stories about the importance of social media during Hurricane Harvey, these stories lacked the information most relevant to a question central to this paper: how exactly did social media connect rescuers and victims, and how could it be more efficient? A few of the articles mentioned civilian rescuers utilizing social media, but no details were included about the specifics of how social media was used. After reading these articles, it was clear social media helped during Hurricane Harvey. However, the question still remained: how did these civilians use Facebook in order to help tens of thousands of Houstonians to be rescued by local civilians in boats?

## **V. Plan of Action**

### **a. Facebook Updates**

In order for social media to be utilized most efficiently in the case of an emergency or disaster, there are several new features that Facebook would need to create and add to the site as well as the Facebook app. Facebook needs to create a new type of status that people can post in case of an emergency. This will be referred to as the “Emergency Status.” When

someone posts an Emergency Status, the status will appear in a different font, color and size than anything else on Facebook. When a user posts an Emergency Status, this status will appear at the top of the Newsfeed of all of their friends. In order to be able to utilize the “emergency post,” Facebook users will have to agree to Terms and Conditions that state they will not make false emergency claims. If a user makes a false emergency claim, and someone reports that emergency post, the Facebook user will no longer have access to emergency posts. I believe that this is necessary to avoid people using the Emergency Status for situations that are not actually emergencies.

The interview with Henry showed how helpful the neighborhood information groups were for Hurricane Harvey. However, since most of these neighborhood Facebook groups are controlled by ordinary citizens, it can sometimes take a long time to be accepted into these groups. There is not time to waste when disaster has hit, so Facebook needs to create their own neighborhood groups in times of disaster. Ideally, Facebook would setup these groups a few days prior to an incoming storm or disaster, and people from the neighborhoods would join these groups. The groups would be run by Facebook employees and monitored by Facebook employees. These groups would work well with Facebook employees accepting requests to join as well as monitoring and deleting posts that do not belong in the group or that are inappropriate because these employees will not be in the location of the disaster. These employees do not need to worry about losing power or not having Internet, so this will allow for these groups to run more smoothly than if someone is trying to monitor posts and add members from their cellphone because their power is out. In the case of some disasters, the groups would not be able to be setup a few days before if the disaster comes unexpectedly,

which is always possible when it comes to weather. However, if Facebook employees are setting up and organizing these groups, they would be able to do so quickly even once the disaster has begun.

Another suggestion is for Facebook is to spread the word about the Facebook Crisis Response and teach users how to use it even before they need it. The Crisis Response could be utilized more effectively if more Facebook users were aware of what it can do and how they can use it during a disaster. Personally, I have looked at the Crisis Response on Facebook, but I have not used it, and I honestly am not sure how I would use it in a disaster. Facebook needs to highlight they have this Crisis Response, and they need to make a big push for users to learn more about it. In order to get users more interested in the Crisis Response on Facebook, Facebook could create advertising campaigns about it, and it could make it fun for people to learn about if they created Facebook videos with instructions and information. These videos could be more successful if Facebook either used celebrities in the videos or made them humorous, and people would then share the videos.

My final suggestion for Facebook is that they publicize the protocols proposed here, particularly in areas and regions before and during a disaster. The following protocols should be posted in the Crisis Response, but Facebook should put them as banner ads throughout the year. For example, Facebook could run them as banner ads at the beginning of hurricane season in areas that are often affected by hurricanes or places prone to wildfires.

**b. Protocol for Victims** (*Visual on p.23*)

Based on interviews with people who played a large role in the coordination of rescue efforts via social media during Hurricane Harvey, the following protocols would be used for victims in need of rescuing. The protocols are as follows:

1. Get yourself to the safest place possible before posting to social media.
2. Post on Facebook a status that is red and white and includes the 5 items listed below.

Using the red and white colors will draw attention to the post.

- a. Your name
  - b. The number of people with you
  - c. Your address
  - d. Your cell phone number
  - e. Any medical or health concerns
3. Make sure your post is public.
  4. Copy and paste this post and publish it in your neighborhood emergency group only. It is necessary that you publish this post in only your neighborhood emergency group so that rescue efforts can be streamlined and can be the most efficient in each area of town.
  5. Once a rescuer contacts you saying they are coming, update your post to say "PENDING RESCUE," and change the colors of the post to purple and white.
  6. Once rescued, update your post to say "RESCUE COMPLETE," and change the colors of the post to green and white.

**c. Protocol for Rescuers** (*Visual on p.24*)

Based on interviews with people who utilized social media firsthand to help organize rescue efforts during Hurricane Harvey, the following protocols would be used for rescuers. The protocols are as follows:

There are two options when finding people to rescue, and rescuers may use either or both.

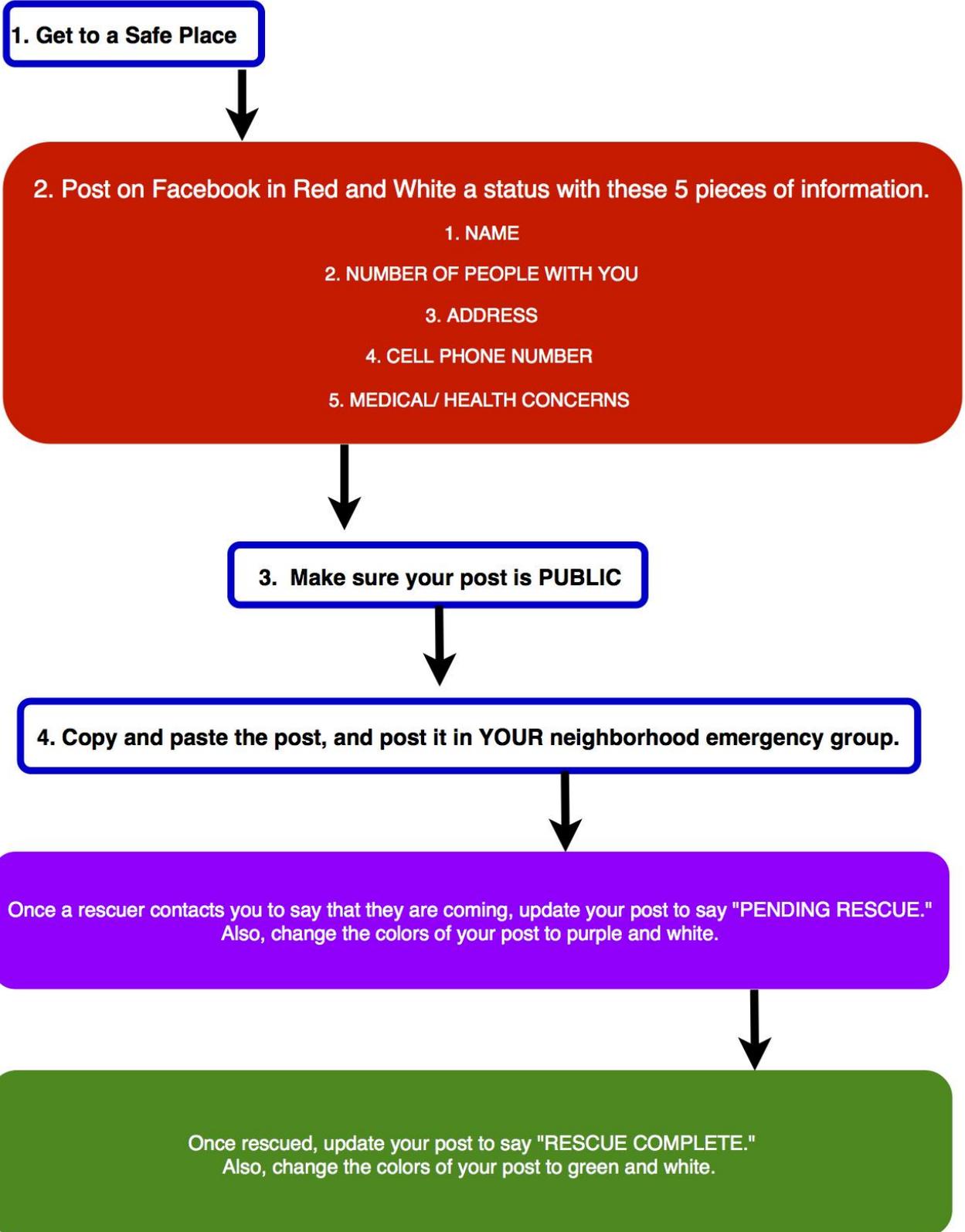
*Option 1:* Comment on the red and white posts of people that you are able to rescue with the information below.

- a. Your name
- b. Location of your vehicle or boat you are using to help rescue
- c. How many people you can fit in your rescue vehicle/ boat
- d. Your cell phone number

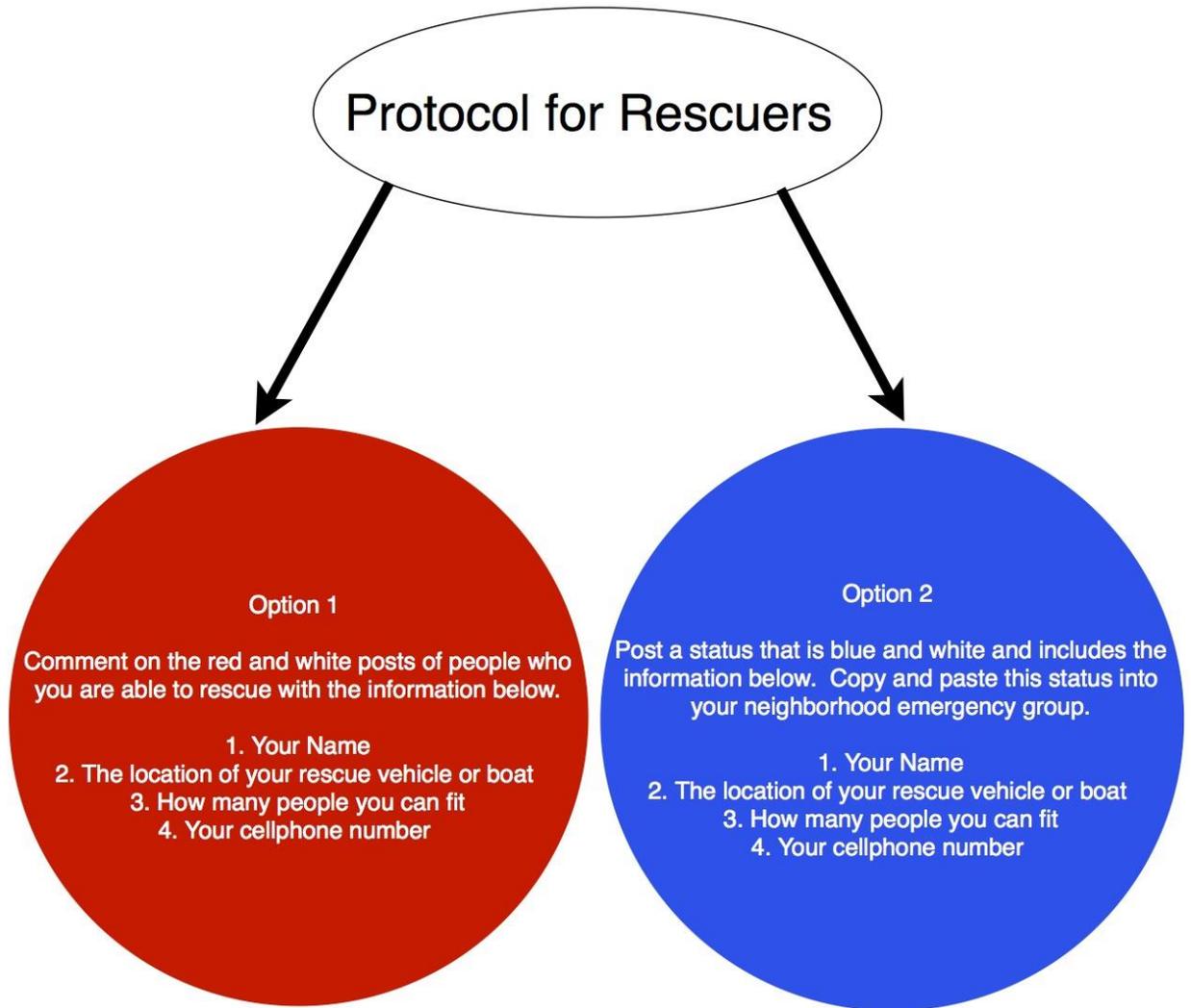
*Option 2:* Post on Facebook a status that is blue and white and includes the 4 pieces of information below. Copy and paste this post into your neighborhood emergency group.

- e. Your name
- f. Location of your vehicle or boat you are using to help rescue
- g. How many people you can fit in your rescue vehicle/ boat
- h. Your cell phone number

**d. Protocol Diagrams: Protocol for Victims**



## Protocol Diagrams: Protocol for Rescuers



## **VI. Conclusion**

Social media, especially Facebook, can and will be useful in future disaster situations like Hurricane Harvey. The key is organizing the information shared on Facebook about who needs to be rescued and people who are available to do rescues. The protocols in this paper will work in conjunction with the suggested changes and additions made for Facebook. Having neighborhood emergency groups run by Facebook employees during times of disaster would help with organizing rescues in different parts of a city or when spread across multiple cities and states. These neighborhood groups will localize rescue efforts, so rescuers do not have to travel as far if there are people near them who also need rescuing. This could save valuable time and potentially save lives. The main benefit to having the Facebook employees run these groups is they will not be living through the disaster, so they will have more time to dedicate to adding people to these groups as well as monitoring the groups.

After talking to Henry, her experience shows that color coding statuses and posts for rescues would be beneficial. People will see the color in the neighborhood group and potentially know right away that if they see red and white, someone is in trouble. And those who are needing help will see blue and white and know they can reach out to that person for help. In times of disaster, these protocols would need to be widely visible on Facebook and could also be part of news coverage of the disaster.

Hurricane Harvey was a tragedy that many Houstonians are still recovering from over a year later. Based on the number of civilian rescues during Hurricane Harvey, it is clear that civilians will need to step up in times of disaster to help each other because government

organizations do not always have the resources to save everyone who is in need of saving. According to Marchetti, CrowdSource Rescue helped save 30,000 people in Houston during Hurricane Harvey. This is an incredible number of civilian rescues, and Facebook can help facilitate civilian rescues in future disasters. Hurricane Harvey caused billions of dollars of destruction and took lives, but the positive that came out of the storm is that we are now discovering how social media can be beneficial in disasters. Disasters are inevitable, and with so many people on social media in 2018, social media, when used well, is a valuable resource for rescue efforts.

## **VII. References**

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