She will use this at home, before being evacuated, and possibly on a mobile device after, but she has never used her phone for anything except calling her grandchildren in Pittsburgh.

#### Challenges

Working from a distance, and being able to rely on power and internet to connect with her smart home devices, and receive good communication about her home is a tenuous prospect.

#### **Motivations**

- → Fulvia will need to keep working remotely with updates on her property and live storm tracking because knowing is better than uncertainty for her. She also needs to know as soon as it is safe to go back.
- →Fulvia's brother and sister-in-law decided to wait it out despite her encouragement to leave. She will want to keep up with their location and safety as well as help them get assistance if needed

## **Fulvia**

### Scenario

Fulvia is a **39**-year-old, single, **mortgage broker** who recently evacuated her home in
the **Titusville/New Smyrna Beach** area of
Florida due to advanced warnings of a **major hurricane**. She is articulate and somewhat
tech savvy with the computing instruments
she uses in her daily business.

Outside of work, she mainly uses her phone to send texts, occasionally access Instagram and is not much of a personal computer user, other than Netflix on the go or "big screen" Facebook and Instagram sessions.

#### Context

Fulvia is a smart lady. She did all of the right things, including getting out in time. She wants to know what's going on but does not want to jump to disparate resources to cobble together the full picture. Searching for a solution that automates and ties a bunch of loose-ends together is tedious enough. That is why she was so delighted to finally find one.

#### Why

She is busy, and her clients will not wait. She needs to keep her job in these COVID times and maintain income streams to satisfy insurance deductibles and rebuilding costs that may be inbound.

> "Busy" does not mean she does not care. Her brother is the only family she has left since their parents passed a few years ago. She does not agree with his decision to stay, but cares for his safety all the same.

- → Fulvia's brother will need to confirm to her that he and his wife are safe periodically. If she can set up automatic prompts, or live- tracking, that would be awesome.
- →Fulvia will need to sign up for periodic weather updates and receive updates if her zip code or address appears on any FEMA lists or "around the internet."

In the thick, at the eleventh hour, is when the direness of his situation is coming into focus. Lorenz has got plenty of gas and battery life on his phone but is not sure if the network signal will last.

#### Challenges

If his network drops, he and his passengers are really in a jam. That is his only means of communicating other than his two-way radio, which is not being monitored today. Fortunately, there is enough signal to send out the initial data package and maybe drop some breadcrumbs for a while. They may not be able to stay put due to encroaching water, so this will may increase their likelihood of being found if they have to make a move.

# himself and four others out of

#### **Motivations**

- →Alert the authorities of his location and provide a way for them to track him/his truck.
- →Locate the best possible path to higher ground, slower moving water, or shallow crossings.
- → Report on all the souls with him, providing names, pertinent medical information, and next of kin for each.
- → Needs a good source of information on preparing for flood hazards and other endemic disasters if he makes it out of this one.

# Lorenz

the situation alive.

Scenario

Lorenz is a 25-year-old cattle-hand in Plano, **Texas**. Always of the mind that "a country boy will survive", and proud owner of a lifted 4x4, he didn't pay much mind when advance warnings were issued for **flash flooding** earlier today and set out to do his iob, wrangling the cattle (his livelihood) to higher ground. Now, he is wedged between rising floodwaters and needs to think quickly to get

#### Context

There is really no time to wait for an app to download in this moment. One of Lorenz's passengers pulls up an official NOAA.gov site on their phone that has a feature with the ability to send a data package to local authorities containing the device's latitude, longitude, and elevation along with an up to 360-character

> description. It also drops breadcrumbs for as long as the device is active, the site is pulled up and network is intact.

#### Why

This is an endgame, life or death situation. Holding out on hope that they might have a chance to be rescued.

- →Best case scenario would be flee to safety along a route that will not endanger the group more.
- →Next best would be to get rescuers enroute before the rushing water envelops his truck.
- →Worst option would be to leave the device on, dropping breadcrumbs for as long as possible.

Very pre-conditional, in an easy but diligent state of mind. They are focused on gathering all of the facts they can about potential homes, but are not under any immediate threat.

#### Challenges

They have limited time to select a home. Any savers of this precious commodity will be appreciated. Any site that relies on mobile network is always subject to interruption, apps as well, although potentially to a lesser degree.

#### **Motivations**

- → Pedru and his wife would like to see flood plains, fault lines, past disaster heatmaps and other landmarks mapped out for each property.
- → Knowing the quantity and proximity of fire and police departments, medical treatment facilities, shelters and so forth is a must. Having never experienced wildfires, they would like to know more about preparing for them, evacuation routes, and resources available to assist before, during, and after fires.

## Pedru Scenario

Pedru is transferring from Portugal to **Yakima, Washington** for work and bringing his **wife and two children**. Having grown up with earthquakes and flooding, and having strong sensibilities toward their force and deadliness, he and his wife are mindful of potential hazards while searching for a place

They want to know more about the types of weather and other risks each property is likely to be susceptible to in order to make better decisions to protect their family.

to live.

#### Context

Using a search for "disaster" maps, they came across our solution, as it has excellent SEO and appeared at the top of the results. Under the Ads, of course.

#### Why

Making a short-list and comparing stats is where it's at: the proverbial jam.

Visualizing the severity of devastation that could be caused by each type of disaster would be helpful in disaster avoidance and mitigation.

- →Learn about the crime, disaster threats, resources available/proximal to each property.
- →See a lot of pictures and not too much writing.
- →Busy checking out listings, running from showing to showing and making arrangements for their big move after all.
- →Looking at maps and infographics, and drilling in for detail, if needed is optimal.

She will use this at home, before being evacuated, and possibly on a mobile device after, but she has never used her phone for anything except calling her grandchildren in Pittsburgh.

#### **Challenges**

Ronan speaks commands into his personal assistant for most tasks, whether on his computer or phone. He waits for "verbal" feedback or audio/vibration prompts to complete most communication loops. For a solution to work for him, he needs to be able to "communicate" with it in the same way.

#### **Motivations**

- →He wants to know and plan in advance who can pick him up, where he can go, and where his dogs will be safe.
- →Not really familiar with living in a disaster area, Ronan wonders what being prepared actually entails and wants more information in a format that he can hear or read (braille).
- →He wonders what services, if any, might be available to assist him before, during, and after a disaster.
- →Ronan also wants to ensure rescuers know where he is, his medical history, next of kin, and so forth, since he lives alone, in a fairly remote area.

## Ronan Scenario

Ronan is a **28**-year-old **organic chemist**, relatively new to the big island of **Hawaii**, with severe macular degeneration that has left him legally **blind**. Volcanoes, hurricanes, tsunamis, and earthquakes all pose **significant risk** to him and his two chocolate labs, Ari and Uzi (not trained/assist animals).

A smart, independent fellow, who also does not want to be an obstacle/burden to strangers, he wants to have plans for these situations in order to get himself and his "dog boys" out safely or ride it out at home if it is safer or directed by civil defense to do so.

#### Context

Ronan heard about this tool from a coworker who used it to make their disaster plan. It was so easy to use, they have been telling everyone about it.

#### Why

To feel prepared, independent, and not like a burden on others. To feel assured that he has a plan and will not have to scramble to make arrangements when it is too late.

He loves his dogs and wants them to be safe and reunited with him if they must be separated. He knows how difficult it would be to get help during a disaster

- →Ronan needs to make a plan.
- → His planning will include contacting others to discuss "retaining" them as his main and backup means of escape.
- → He will need to make arrangements for his dogs ahead of time, in the event he cannot take them with him to a shelter.
- → When the disaster strikes, he will need a minimal number of steps to alert authorities, the dog shelter, and his means of evacuation that it is go time.
- → In case of dire emergency, he will need a method of alerting rescuers to his location.

She will use this at home, before being evacuated, and possibly on a mobile device after, but she has never used her phone for anything except calling her grandchildren in Pittsburgh.

#### Challenges

Her methods will be somewhat limited to her understanding of technologies involved. She may go about things in an inefficient way or be confused by things she sees/reads online.

#### **Motivations**

- →Wants to know how she can get assistance evacuating if needed, and send her location.
- →Remembering all of her medications, medical history and important documents could be an issue. She may need help organizing this information.
- →Checking on Henry to make sure he is okay.
- →What to do with her cats?
- → Deciding whether information on social media is "real" or "fake".

### Suzana

### Scenario

Suzana is **75**-year-old cat-lover and **California** native, married to Herbert who lives in a nursing home due to ailing health. All in all, she takes care of **6-8 indoor and outdoor cats**, and cares for them deeply as they are her only companions most days.

She heard on the morning news program that wildfires are spreading toward her neighborhood. Looking on Facebook, where she goes from time to time to check on her family and, for better or worse, get information on current events, she sees a lot of conflicting information about the fire and how fast it is spreading.

Not nearly as spry as she used to be, unable to drive well at night, and thousands of miles from her nearest younger family members, she worries about how she can get out, where she will go, and what will happen to Herbert and all of her blessed cats.

#### Context

A creature of habit, Suzana returns to the platforms she has always depended on for news and information. Television and Facebook are her primary sources of information and communication. She just needs help cutting through the stories that are trying to fool her.

She notices that there are now marks on a bunch of Facebook posts and it looks like these are "official". Seems like an unbiased third party is inspecting stories/pages/posts and flagging them as accurate. There are also posts about a site she can visit to plan her evacuation. She is not sure if she should click it, but she has limited options at this point.

#### Why

Self-preservation, not wanting to leave Herbert or the cats that she feels responsible for will influence her decisions.

- → Suzana will likely need to lean on others for evacuation. She needs to search for a person she can trust to assist her.
- → Herbert will not be able to communicate via internet/mobile without assistance. Suzana will need a "next best thing" to keep track of him and his safety.
- →There may be resources that can house the cats, Suzana will need to connect with them and make arrangements.