

Hello, my name is Azby Brown and I'm the lead researcher for Safecast.

The title of this module is Secondary Fall-Out: Anticipating and Mitigating Second and Third-Order Effects.

Today as I talk to you about collective action, I want to share some observations we at Safecast have based on our experiences responding to the Fukushima nuclear power plant disaster which began in March 2011.

Safecast was begun in response to an information vacuum regarding the spread of radiation in Japan due to the accident. We decided that collective action in the form of crowdsourced radiation data collection could help people inform themselves.

This led to our developing a number of open-source radiation detectors with GPS and data logging that could generate maps of radiation levels. This was integrated with an online database and map visualization system.

Within a few months, the Safecast system grew to be the largest open database of radiation data ever created. Nine years later the project is still going strong with data from over 100 countries and we've expanded into air quality monitoring as well.

In response to the COVID-19 pandemic, we are currently focusing on crowdsource responses to that, such as this online testing information reporting map.

Although the primary initial goal of Safecast was data focused to provide credible, actionable data to the public to help them make informed decisions, we quickly realized that there was a huge need for effective and clear communication about the situation: the risks and the science.

We took a community-centered approach to that as well through online discussions which are still ongoing, social media, public presentations, and educational activities.

These activities are not secondary to the data gathering. Rather they're complementary, and address broader underlying social needs. Observing the official and the social response to the COVID-19 outbreak, we quickly realized that there were a number of fundamental similarities, both in terms of problems and potential.

We've written about these issues already and are providing links for you to follow up.

Many COVID-19 initiatives are rightly focused on what we can consider the first order effects of the pandemic, namely health.

This includes identifying and taking care of the ill, making sure medical supplies and personnel are available where they are needed, issues like maintaining the many lifelines that people depend on day to day such as food, housing, and communication, taking care of waste collection and keeping utilities operating, are often included in disaster response plans as second-order effects.

There are others however which are less concerned with logistics but

with psychological and community damage. As we develop and deploy solutions for these, it's important to keep these second and third-order effects in mind. These often seem less like emergencies but are often very serious and longer-lasting.

After Fukushima second and third order effects included many traumatic developments for a lot of people.

These included: lost jobs, lost homes, closed schools, lost communities, stigmatization, misinformation, unaddressed grievances, feelings of betrayal, persistent psychosocial effects.

These all happened in Fukushima and nine years later we are still dealing with the problems that emerged. Healing and recovery take a long time.

Unlike after Fukushima, this time the trauma is global. Fortunately, these problems generally lend themselves to a collective action-based approach. In this module, as we focus on these second and third-order effects we will see that a lot of it has to do with communication. For us, this means learning how to frame responses in terms of community significance. This helps prepare the way for establishing and maintaining effective collective action.

To put it in a larger context, during and after crises, people seek: answers, fairness, inclusion, and also trust, clarity, cooperation, compassion, and community. All of these become both essential goals and effective means.

Let's take a moment to talk about trust. One of the biggest lessons we learned through helping people respond to the Fukushima disaster is that trust is not a renewable resource. There can be no trust without transparency and trust is the key to everything we hope to accomplish. Trust lost 9 years ago by Japanese authorities, by government, media, and experts, even today hampers efforts to respond effectively to COVID-19. In Japan, suspicion persists and people are not convinced that government truly has the best interest of the public at heart.

The Fukushima aftermath established and solidified a negative relationship in which the public feels it has to defend itself from being deceived by officials. The Fukushima crisis has receded since then – though it has not disappeared – but the mistrust persists. People in Japan in 2020 have a strong sense of déjà vu. In 2020, although there have been numerous examples of good leadership, we have seen a repeat of many of the same negative tendencies, such as a lack of transparency, slow action, lack of planning, all of which engender mistrust.

We see this not only in Japan, but globally. This helps us understand it as a fundamental structural development of how societies and governance function today.

Notably, then as now, we believe that people feel a lack of compassion on the part of those responsible for protecting them, on the part of leaders asking them to put up with uncomfortable or unpleasant

measures that leaders are not required to reciprocate to endure the same experiences, or that they're in fact culpable and should be held accountable.

After Fukushima, we learned that people need to know that you care before they'll care what you know. Trust requires compassion. Participatory collective action involves people working together and openly to meet common goals and to help others.

Keeping sight of the goals, the main thing to keep in mind is that establishing and maintaining effective collective action is one way to help establish networks of compassion and trust. This can help minimize negative second and third-order effects that might emerge after the health crisis has been successfully dealt with.

Psychosocial effects ended up being very serious, widespread, and persistent after the Fukushima disaster, particularly among evacuees. These are primarily mental health issues separate from any direct first-order health effects like radiation sickness, or in the current crisis, COVID-19.

Psychosocial effects began to emerge immediately in the first days of the Fukushima disaster and ultimately affected everyone. We suspect it will be the same in 2020.

In Fukushima, they had multiple causes. A sense of betrayal by government and community has played a large role in Fukushima throughout the response and recovery period. This is rooted in the mistrust and a lack of accountability that emerged in the first days of the accident.

Some key aspects of psychosocial effects we have to be aware of are: some people are more vulnerable or susceptible to begin with and they can suffer more seemingly in disproportion; everyone is under unusual stress, experiencing a kind of grief at what's been lost even when not directly touched by death; there is an age factor, and a gender factor as well.

Psychosocial effects can lead to physical abuse, such as domestic violence, and substance abuse. In the worst cases people may experience a feeling of hopelessness and become suicidal. It's difficult to get counseling while a crisis is unfolding and possibly afterward as well, especially when lots of people need it at the same time.

On the other hand, many people step up and provide care and assistance to others even if they're not trained to do so. Human communities appear to have an inherent social healing capability, in which compassionate communication plays a fundamental role.

Ways must be found to help this emerge. It is also an important aspect of collective action. Our approach at Safecast again is participatory: by empowering people somehow to help themselves and help others, to belong to something where their presence is valued, some meaning and forward growth is allowed to emerge from the pain.

Keeping sight of the goals, the main thing we hope to achieve is the preservation of mental health, and through that, community well-being.

This requires compassionate action. One of the biggest problems – one which cuts across many spheres of crisis response action – is that people seek answers and they find a lack of clarity instead. It occurs in official crisis messaging inaction, and can engender mistrust and encourage social fragmentation or even simply giving up.

This can be caused by conflicting messages and contradictions, omissions, people feeling they're being given only part of the story, key information being difficult to find, or once found, perceived as ambiguous; obsolete information remaining in circulation; misinformation and disinformation casting doubt on valid information.

The result in Japan in 2011 was endemic mistrust. After Fukushima, crisis communications specialists around the world paid close attention to what had gone wrong and tried to learn from those mistakes.

These experts revise their plans and methods in order to make similar failures less likely. Safecast was happy to play a role in that. Our communication was considered a model of clarity.

How did we do it? Unlike officials and mass media, Safecast found itself having gained trust in mind share, and being called upon to help people understand what was true and what wasn't.

The Safecast approach to countering information uncertainties was to maintain a level and factual tone. To entertain all questions no matter how absurd they seemed.

We acknowledge the uncertainties, why people might feel justified in believing certain unlikely things – that the Fukushima disaster had killed all life in the Pacific Ocean for instance.

We prefer to take a collective community building approach. We try to convey we're just like you and we've been looking into it and this is what we found, and we'll show you how to do it yourself.

We found out what things people wanted to know most pressingly, about their health, safety, food, environmental effects, and provided clear answers using multiple participatory channels. Most importantly, we help people find ways to answer similar questions themselves.

We established workshops and educational programs that provide a direct learning experience and skills. We worked on our visualizations, our presentations, our design, in our language.

We made it easy for people to participate in our collective action and did everything we could to make Safecast as broadly inclusive and accessible as possible.

Ultimately, it doesn't matter why government fails, just that it does. And people are forced to find ways to do what government should but can't. This opens the way for collective action.

We think government is not good at anticipating the social dynamics of mistrust or at resolving it.

Collective action, on the other hand, excels at it. We are awash in misinformation and disinformation, and they require special scrutiny. All of us can share stories about alarmingly wrong things we've seen or read or had sent to us by well-meaning friends or family.

For our discussion, misinformation stems from error (often unintentional), while disinformation is deliberate. In reality, messages are often spread and artificially amplified which combine both.

While both are problematic, disinformation is more insidious. There's many reasons why people are receptive to disinformation. Many people lack the media literacy or other knowledge to distinguish and reject bad information.

There's a very large emotional component to our response to information, which disinformation takes advantage of. During crises, people are afraid and suspicious and especially impressionable. We are social animals and more easily accept information passed to us by friends, family, or our own group, so we're more likely to suspend our normal skepticism.

Finally, the people generating and amplifying disinformation are highly motivated. Disinformation comes from many corners and several primary motivations.

Clint Watts of the Foreign Policy Research Institute has studied and written about disinformation for years, and is a good source of analysis of the issue. The primary significance for us is that acceptance of disinformation makes it difficult for people to work together to help cope with the real problems.

Warning: Debunked stories often don't stay debunked.

At Safecast, we've done a lot of debunking over the years and noticed the same stories keep reappearing year after year. The more interesting they are, the more often they get repeated.

This can have dire effects in terms of influencing people's understanding of important issues and dissuade them from taking appropriate steps. Keeping sight of the goals – establishing and maintaining effective collective action – requires anticipating real questions and needs and responding to them with tremendous clarity. To minimize mistrust and suspicion of accurate information, this includes countering misinformation and disinformation which might prevent people from taking proper steps.

In conclusion, in 2014 the late sociologist Ulrich Beck coined the term "emancipatory catastrophism". We found it to be a useful concept for framing our own goals and identifying the nature of the opportunities were confronted with.

Emancipatory catastrophism focuses on the positive side effects of bad, so to speak: to think about what good can come out of bad developments. Beck points out that catastrophes can unshackle latent creative social energy and create room for people to operate more freely and autonomously.

This was precisely our experience following the Fukushima disaster. This doesn't magically make everything better. There are no easy solutions. But effective collective action and crises can go a long

way toward generating positive social dynamics in the midst of chaos and mistrust.

As you plan and implement your own responses, we urge you to keep the long range second and third-order effects – the social and psychological ones like the ones we've discussed – in mind.

I hope you've found this discussion informative and useful and welcome your comments and feedback. Thank you.