

THE DISASTER DIALOGUES

Rethinking Our Approach To Disaster Preparedness



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FOREWORD

Disasters happen. Many federal, state, local, and private entities invest significant resources in disaster readiness initiatives. But they primarily focus on how to improve management of disasters. There are huge gaps in how we think about individual preparedness — the information we collect and share, the tools we use to connect and communicate, the ways we educate and support people to ensure they take the necessary steps to be ready when disaster strikes. Inadequate preparation can lead to catastrophic consequences.

Disasters are not “won” in the moment. The before (preparedness) and after (recovery) are most important in an emergency situation. Instead of spending so much time, energy, and money focused on managing disasters (reacting, surviving) - how do we improve the ways we prepare, learn from, and rebuild when bad things happen?

Disaster Dialogues consists of interviews with eleven very smart people from various backgrounds and with expertise related to disaster preparedness and response, data, behavior change, innovation, and more. Together, we look at how to improve the ways we prepare, learn from, and rebuild when bad things happen.

Themes include:

- Getting people to care about preparedness is hard; day-to-day needs come first.
- Innovation has a role, but opinions differ on the value of that role.
- Communities are vital to helping prepare and respond to disaster – online and off.
- Top down solutions to preparedness are not the answer.
- Local leadership, engagement, and customized plans are necessary.

These conversations are just the beginning. Take a look. Let me know what you think at brian@littlemmedia.com.

Brian Reich
little m media



*“Do we trust the machine enough...
to start having assisted decision-
making in times of crisis?”*

Jonathan Bélisle

Relational Artist and Web Entrepreneur



Jonathan Bélisle has been a relational artist and web entrepreneur for nearly 20 years. He is an interactive production director, dedicated UX poet, creative techie, and teacher. Jonathan is the founder of Hello, Architekt, co-founder of UX MTL, a community of 600 UX professionals, a professor of experience architecture at INIS Media School, and a partner and chief experience architect at SAGA.

Q: *When it comes to preparedness, what role does being connected to others play? How do you create a mechanism that allows a community to adapt, or respond, to different situations?*

Jonathan Bélisle: People are now able to learn from each other from different places of the world by interconnecting objects that previously would have been too expensive to deploy. And simulation allows people to ask the right questions as they are living and experiencing something.

Q: *Is there a way of looking at communications in a structured way so that the same approach can be used across a wide range of communities or geographic areas?*

JB: I think every city is different – in terms of their design, and their culture. So, preparedness in Austin, for example, would be very different from Montréal. And everywhere else.

Right now we talk about smart cities, which is more a utilitarian view of the types of intelligence we can, and should, gather. Right now, we can sense what is happening – we can sense how much water a building is losing, or how much a building is filled with the types of people or conversation that might be useful towards something like preparedness. We can also map cultural exchange on cities. We could know that a park is the place where most people have ideas, or figure out where people rest, where kids play and similar. This knowledge is gathered over time. And if you want to be prepared you need to know your city. So it could be a

way to use that information to learn about buildings, places that people have horizon view, places where people can actually feel secure when they sleep.

Q: *How do you turn that information into a plan, or some way of training people to take certain actions?*

JB: With the right sensors, buildings themselves become characters in the planning and response – they can have a certain sensitivity or personality, and learn from the surroundings. They are listening to different levels of noise that they match with certain risk threat. When there's a crisis, that building can say, "I'm 80% safe, or I'm 40% safe." It will just emit that information. Then people around that building can be sent that information. It's not a human being having to make sense of the information and then share it. The building plays that role.

Also, very soon all our phones will be enabled with micro-projectors and other features that we can use to share information socially, and at very large-scale. For example, if something is happening near me, I could project on a wall or on the street a very detailed view of the zone where everything is happening – creating a very rapid common view for everyone. You could show people where something has happened, where the threats are, what routes to follow. And because everybody sees the map projected on the wall, everyone is receiving the same information – and we are able to act together.



Q: *How do we make sure that human behaviors evolve at the same rate, or in the same ways, as the technology – so the intelligence of the city doesn't exceed what the residents are able to utilize?*

JB: There is no clear roadmap right now. It's all about adaptation. Human behavior is not predictable unless you have trackable data. Google is able to predict what you do because you allow them to track you. If you don't allow them they will be very poor at predicting.

could that know 80 percent of people don't know how to take a certain action. When someone answers a question like "Do you know how to start a fire – yes or no?" If the answer is no, then they send a video to show them. Ask the same question again the following month and track the changes in preparedness.

Q: *So we shouldn't measure preparedness based on actions taken, but rather the emotional connection that people have to the space and the specific thing they need to know?*

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**There is no clear roadmap right now. It's all about adaptation.
Human behavior is not predictable unless you have trackable data.**

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I think we should invent an app that starts asking questions such as, "Do you feel safe in your environment? How much? 20%?" Then the next day it asks "Do you have clean water? Do you have clean air? Do you fear earthquakes? Did you fear violence in your neighborhood?" and whatever. As people provide those answers you can start to create a portrait of a community. They already have those kinds of surveys done, but not in a very real-time way.

People are not really prepared. But the basics of preparedness – clean water, a source of food – those are very basic needs. We should have a survival kit that is constantly upgraded based on the awareness. With that kind of information, city officials

JB: Yes. We live in an age of sensor now. The information age was finished in the '90s. In a crisis environment, people will not be able to trust each other. When people are scared they might lie to preserve their own interests. But collective effort relies on trust. So what if we take the human component out of it. Maybe I have a sensor that tells me to leave because the area is unsafe. It tells me to drink water because I am getting dehydrated. If the system is deployed by a city then you can start to see the larger narratives develop. We collected the data, and everybody behaved correctly. We have reason to be concerned about this neighborhood because we are sensing that air quality is really bad and people aren't eating properly. You should leave this area. Health warnings could be transformed in narrative.



Q: *Will people trust the sensor – a machine – over themselves?*

JB: Not yet, but we have to get there. Do we trust the machine enough in the next 10 years to start having assisted decision-making in times of crisis? Do humans make good decisions all the time in times of crisis? Can we demonstrate that the machines,

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In times of crisis very rapid propaganda could create a catastrophe. People could overestimate the danger of the situation with not enough data and create a story that makes everybody afraid.

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with the ability to make sense of new patterns of analysis and at different correlation between place, people, and what they do, can process information better and faster than the human brain?

Q: *What should we stop doing to improve our approach to preparedness?*

JB: We are a story driven species. We have been for a long time now. It's a benefit and a flaw because we don't understand facts very quickly, so we need stories to wrap them up. In times of crisis very rapid propaganda could create a catastrophe. People could overestimate the danger of the situation with not enough data and create a story that makes everybody afraid.

Right now we are following social media and opinions, not facts. And I think this is a bad behavior of the social media era. I think the first thing we need to do is build social conversation in times of crisis. I think we're not mature with the internet yet. We're sharing a lot of opinions, but we have not learned how to have a factual debate about hard data.



"I see preparedness as a continuum vs. a defined state of being."

Kellie Bentz

Manager, Global Crisis Management, Target



Kellie Bentz managed Target Corporation's global crisis management program which involved response planning across the company, responding to incidents that impacted the company and organizing a coordinated response and global monitoring for all incidents that could impact Target's people, business or reputation. Prior to her role at Target, Kellie served as the senior director of disaster services at Points of Light. Over the course of her career, Kellie has responded to various disasters, including Hurricane Katrina, the 2011 Japanese tsunami and earthquake, Super Storm Sandy in 2012, and Ebola. She also served as the chair of the volunteer management committee for the National Organizations Active in Disaster. Kellie started her career in crisis management in New Orleans in the wake of Hurricane Katrina. There, she started a volunteer disaster relief operation to help rebuild communities. As the result of her work there, Kellie became the founding executive director of what is now HandsOn New Orleans.

The following interview was conducted with Kellie while she was with Target. Since that time, Kellie has moved to San Francisco to lead Airbnb's Global Disaster Response & Relief efforts.

Q: *How do you define preparedness? What do you think is possible in terms of getting people to be more prepared?*

Kellie Bentz: First and foremost I see preparedness as a continuum vs. a defined state of being. There is not one action or one set of actions that will "prepare" anyone for anything.

I would say from a corporate perspective (since that is the role I currently hold), it falls into a couple of different categories. We have a continuity and resiliency team, which means they focus on the business continuity plans and the critical infrastructure pieces, including technology. They create those very tedious technical plans. And then we have a team that focuses on the response and crisis management aspect working closely with the continuity and resiliency team as needed.

On our crisis team, we have a specific specialist dedicated to creating and building out our exercise program for the company. And that really is to exercise the crisis response plans that have already been created and ideally those that teams have already been trained on. And then it's ready to be exercised.

Many companies, like Target, want all of their people to be as prepared as possible or be able to respond if there is anything that would potentially impact our people, our business or our reputation. Our company does awareness campaigns during national preparedness month but we are really trying to have that be a year-round thing so we have an internal preparedness portal where all team members have access to be able to get that information for themselves and their families in addition to how they can be prepared at work.

We have multiple drills and exercises throughout the year – not just fire drills but we work on things like ammonia response plans for our food distribution centers. We work on our flight services response plans and how we exercise those and build out an exercise program. So some of those programmatic elements are actually still in development.

From the business perspective, we often look first from a continuity standpoint – how you continue the business while something is being impacted. How do you prepare for that? How do you prepare for recovering the business while you're trying to continue it?



Q: *What is the primary hurdle to getting individuals prepared in your experience?*

KB: I think the primary hurdle to getting individuals prepared is that people don't think it's going to happen to them. The easiest people to get more prepared are disaster survivors because they've been through it. They know it can happen, and they know the critical things that they need to prepare for themselves, their families and their business. So they are more resilient because they've been through it before. They know what they need and

To me, critical contacts and communication is probably the number one thing to prepare. But the hurdle is really the people that don't believe it's going to happen to them and then not knowing what to do. It just doesn't feel real to a lot of people.

Q: *With so many different types of potential disasters, is there a way to adapt people's perspectives, depending on their circumstance, to help make a situation seem more likely or more relevant to their lives?*

I think the primary hurdle to getting individuals prepared is that people don't think it's going to happen to them.

what they would take with them versus what they thought they would take with them (in the case of an evacuation).

I think about when I lived in New Orleans and hurricane evacuations. You really think about those critical items that you can fit in your car. When I think about the people that we worked with all those years, and what they lost - it was their photographs, their critical documents, birth certificates – and those types of things that were really sentimental. And then being able to come back to a community that's recovering itself and being part of a support network – and ideally having that network in place prior to the disaster.

KB: First, the crisis management, disaster space, whatever you want to call it is definitely moving more towards an all hazards approach. There are specific nuances to how you prepare or plan for specific types of disasters. But as far as preparing for those as an individual or as a family, there are critical things that you can do to prepare for an emergency.

The number one thing in the immediate aftermath of a disaster is that people want to be connected and know that their loved ones are safe and secure. And once they know that then they can continue through the recovery process. Your contacts and communications should be number one. How are you going to



contact your family and friends? When are you going to contact them? Have first second and third ways to do that. If only cellular is available, if only internet is available, if cellular is down ... go through those different scenarios and then prepare for them.

Then, thinking through the different types of scenarios. You need to ensure you have a plan and can articulate your plan to different people – if you are at home, or traveling, if you have time to prepare (as in the case of a hurricane where you get advance notice) or you don't (such as in the case of an earthquake). So instead of looking at the causation of the disaster, it's more thinking about what is the reality that you're going to have to live in.

Q: *Do you think the fact that we are all connected and have instant access to information undermines the argument that is being made to encourage people to be prepared because they have become conditioned to think that they're always going to be able to access information, or ask for help?*

KB: I can certainly see the argument and that mental framework especially for those that have grown-up in the "technology is everything" age and rely on that. And so certainly I think that is a barrier but not one that can't be moved through. I think you can put those people in situations or talk them through the scenario to help them better understand. And I think unfortunately it oftentimes takes a disaster to experience that – to actually live it and understand it. So yes I would agree that it is probably a barrier but one that I think is not insurmountable.

Q: *There are presumably a number of things that we are doing that are standing in the way of more innovative and more accessible or compelling approaches to preparedness. What would you suggest we stop doing so that we have the possibility to explore some different ways of doing things?*

KB: I think that we have to shift the focus of people thinking, "If I do X, Y and Z that means I'm prepared." That's the myth that has to be busted because in no way, shape, or form if you have a 72-hour kit does that mean that you're prepared. That's just one step in the process. You can't check the box and say, "I'm prepared." You are more prepared, but you can never really say, "I'm 100% prepared," because you can't predict everything that's going to occur. We need to think about this more from a community standpoint. That's an important shift in our thinking that needs to happen.

I think what's more important than just the actual action of getting the water or getting the food or packing your kit – or whatever that is – is the actual process of thinking through and planning. I don't think the current approach –of the "72 hour kit" – is bad, or not useful. I do think that there are other things that could be done as well. I think there are different efforts in the resiliency space that are looking at preparedness more from a community approach – looking at asset mapping and working with community organizations and neighborhood organizations to get a neighborhood or a block organized, or looking at the network of people within your neighborhood so that you help bring the community back online versus just looking at your individual needs or individual level of preparedness.



"It's not the one-person or the four-person team that won a giant prize at an event or that came up with this grand idea. It's about the long-term systemic change that it takes."

Willow Brugh

Community Leadership Strategist, Aspiration



Willow Brugh is the community leadership strategist at Aspiration and a professor of practice at Brown University. She is affiliated with the Center for Civic Media at MIT's Media Lab, the New England Complex Systems Institute, and is a fellow at Harvard Law's Berkman Center for Internet and Society. She has facilitated hackathons across the world, including Port-au-Prince's first-ever hackathon, embedding technology with local communities through open source and co-design. Willow investigates connections, systems, empowerment, and powerlessness and strives to understand and improve what she finds. She has worked with the Occupy Sandy movement and the Naval Defense University, and has keynoted the IEEE Global Humanitarian Technology Conference. Willow received an award at the White House for her contribution to the FEMA Field Innovation Team for Hurricane Sandy.

Q: *What do you think is the most interesting, or promising, area of preparedness? Where should we be focusing?*

Willow Brugh: We have institutional knowledge. We have history. We now also have climate science where we know when extreme events are likely to happen. We used to get away with not preparing much because the potential cost of preparing and it potentially not being worth it was higher than it was to just do recovery. Figuring out how to show that preparedness spending is more effective both financially and in reducing suffering is the most promising area of preparedness to me right now. The numbers are there as well as the ethics. I don't think that it is a question of whether or not we should do it. We know how to do preparedness to a pretty high degree of precision now. We will of course do it even better. The most interesting to me is designing the entire response ecosystem around front line communities.

Q: *Is there, in your mind, a difference between how we should think about institutional preparedness and individual preparedness?*

WB: They are a part of the same thing. Institutions are amazing at having history, at bringing checks and balances, and at having repositories of resources. Individuals are really great at being part of a network, which is known to itself, and robust. So it's

able to both deliver last mile logistics as well as give it situational awareness. We need to think of individual and institutional preparedness as a part of the same object, so the different styles can compliment each other.

Q: *In terms of how we as a society are evolving and becoming more connected, is either individual preparedness or institutional preparedness advancing in your mind more rapidly?*

WB: I see connection as evolving through a couple of different steps: the first we already have are communication infrastructures which are good for broadcast of extreme events from institutions to individuals. The next step which also is already happening is that information being taken up by neighborhoods comprised of individuals which have already been talking to each other for a long time. The neighborhood already knows how to take care of itself (so long as it's been allowed to do that - which sometimes it hasn't). What's new for our connections is when comms go back up, we open up the possibility of remote digital responders chipping in – helping to parse through all the information that's happening around the event.

This data isn't generated for the institution, per se -- it's often the exhaust from people who are talking to each other. Gaps realized in those conversations should be filled by institutions.



One of the groups that I spend time with, The Center for Civic Media, had shown in studies that people pay attention to groups they already know about. We thought that the internet and all this connectivity was going to link us to the rest of the world and it was going to be beautiful and multinational. In fact it's allowed us to pay even closer attention to the things that are even closer to us. But it's important that people actually understand this is a real tendency, and that we have to actively fight against it in order to be a part of a larger community. It's something that continues to happen in disaster, people who are in Boston are not likely to pay attention to floods in Pakistan, but the digital response space is something which bridges these gaps in attention.

Q: *How do we get communities, or individuals, to pay more attention to things beyond their immediate experience?*

WB: An awful lot of this is that communities don't have the time or extra resources in order to focus on preparedness. When you talk to people who have very little in general, including in the U.S., those are also the people that are most vulnerable in these situations. Mandating what "they" should be doing is not going to work because, frankly, "Fuck you. Who are you to tell me to do that?" is the general attitude, and I would tend to agree with it. Long-term interactions would say, "Hey, what does your

community need to be more resilient on a day-to-day basis?" I don't think it's just a conversation about disaster preparedness, it's how we can talk about larger problems. That's why I do the things I do -- while the problems are just continuations of themselves, people have a really hard time ignoring disaster response whereas they can ignore people being hungry on a day-to-day basis.

Q: *Would you argue that our narrow focus on specific preparedness actions is not likely to have breakthrough success, unless we focus on the larger context and connection to issues people are facing?*

“Mandating what “they” should be doing is not going to work because, frankly, ‘... Who are you to tell me to do that?’ is the general attitude...”

WB: It's nice that we can get the funding for preparedness and response. But people who are having a hard time day-to-day figuring out how to survive aren't going to care that something even worse might happen two weeks down the

road or two years down the road. They care about putting food in their mouths and food in their children right now. Thinking about preparedness as a stand-alone silo (even as we try to connect all the parts of response) is part of what is what is wrong with everything in humanitarian response. It's all connected, and I really feel like we can talk about preparedness as a way of uplifting everything. Then it absolutely does help preparedness. But if we just think that we're going to have potable water and an evacuation pack or whatever, that seems overly simplistic and



disconnected from the reality of many people, which means that it's not going to connect with them, and the whole system will continue to fumble.

Q: *Are we not asking enough of the people or the communities that presumably have the ability to prepare for themselves by not actually creating the intercommunity connections? Should we be directing people to create a buddy system in a preparedness context instead of looking at this too individually and knowing that some people are just not going to get to the same level as others?*

WB: Yeah, I think that strong individuals make a strong community. And so by asking people to look out for each other, hopefully mentoring and support is also happening – but this often happens anyway.

Q: *Perhaps they will take care of them anyway – but should we go a step further and make a request that people who are prepared take specific responsibility for someone else?*

WB: Yeah, but even that is too exact. I would love to see, instead, documentation for replication of community practices that we've seen. People might have a generator that is way more than they need for their house. Knowing that setting up a power strip out front with a sign that says, "Hey, come charge your phone" is

a great way to encourage self efficacy. It's not them going to one other person's house because they're in a buddy system. It's them saying, "Look, if you can see this sign come bring your device by," because they're always going to be people that we miss in trying to have a buddy system.

In certain populations there are people who have been trafficked. There are all sorts of people who can't go and talk to FEMA because they don't have a Social Security Number. So they are

left out in the cold, literally, when they need assistance. And so instead having this community approach means that it's a little bit more permeable and flexible to not only what the needs of the community are but also what different people in the community have to offer. And so having those scaffoldings of, "Hey, here's how you take care of a community. Here's how you do this in a more

open way," I think it would be hugely beneficial.

Q: *Are there non-disaster management, non-disaster preparedness, non-humanitarian NGO social good actors or entities that you look at that you think are particularly interesting in terms of how they've figured out how to connect with people and get them to do things or change how they do things?*

...people who are having a hard time day-to-day figuring out how to survive aren't going to care that something even worse might happen two weeks down the road or two years down the road.



WB: I mean, this is what universities are, right? Entire institutions set up to alter how individuals act. We've also seen libraries change the way individuals can inhabit the world. We've seen Wikipedia set up the scaffolding for massive collaboration. We've seen some MOOCs change what's possible in learning, although that's a mixed bag. And we've also seen any free software or hardware project spawn cross-geographic and cross-cultural collaboration.

Q: *Are there things you would encourage us to stop doing when it comes to preparedness?*

WB: I think that we need to stop assuming and having the rhetoric that government entities are going to come in and fix everything – that Red Cross is going to come in and fix everything. I think we need to shift back to being responsible for ourselves, and institutions are responsible for making sure that any gaps that we have are filled. I think that's the main thing that we need to stop doing is assuming that one mode or system is going to fix everything. They are a vital part but they're not the whole thing.

Q: *Do we have an inertia problem when it comes to changing our thinking and behavior around preparedness?*

WB: I think most things are inertia problems. The people that I know that are in response groups and people that I know that are in FEMA and other parts of DHS are all lovely people. They want to do good things, and they should be doing good things. It's that they're trying to do things that their institutions are not

shaped for. The bulkiness of their shape does not allow them to deliver that grain of detail. And so diverting the inertia of trying into instead trusting that the population is going to be able to say pretty accurately what it is they need and how they need it and then fulfilling the mandate of providing is, I think, a pretty reasonable step that we can hopefully figure out within the next 15 years, maybe sooner.

Q: *Fifteen years – that seems like a really long time. Do you really think the inertia because the role of government will actually take that long to turn over?*

WB: No, it's that I hope it takes that long because I want it to be community driven and with government sanction. I don't think the private sector should have a large role in disaster response unless it is their corporate responsibility role.

Q: *So don't make it an entrepreneurial venture that "improves" preparedness as opposed to an organic, community powered approaches bubbling up in appropriate ways?*

WB: The market is good at finding short term fixes to long term issues -- but rarely at delivering something which actually addresses the core issues of access and equality at the core of response and preparedness. I hope that it takes 15 years because the level of community engagement that it would take to be resilient enough to disasters are at the level of something like Occupy Wall Street. And right now those actions get shut down because of inertia. Until we can see people performing mutual aid at that scale together in a government sanctioned way,



we're not going to be resilient to disaster. And having startups get into this space and be further disruptive I think is probably the worst thing that could happen. Who are they disrupting? I bet it's actually people who are already vulnerable.

Q: *What would be something that you think would be a constructive spark if there was an entrepreneurial type approach?*

WB: Two points. One is that there are some good things that have come out of hackathons as they've continued to be developed, like the water infrastructure tracking tool, Taarifa. I think that having events like that allow a sense of possibility and a sense that things could be different. And we can in fact change the way we do things and speed up the rate at which we respond. We can do radical change instead of the incremental change of inertia. And we repair and we understand. It's that people tend to really fixate on that spark and they really don't like that we have a long haul, let alone having to realize that these are long-standing issues with cultural history. And so that is far less glamorous and hard to build team unity behind. It's not the one-person or the four-person team that won a giant prize at an event or that came up with this grand idea. It's about the long-term systemic change that it takes. And we can use entrepreneurial spirit to encourage that those things can happen, but we have to have the execution as an even greater part of that dialogue.



“Americans don’t prepare for things. We don’t mitigate. That’s just not what we do. What we do is we respond.”

Warren Eller

Associate Professor, Department of Health Policy, Management, and Leadership, West Virginia University School of Public Health



Dr. Eller is an expert on the implementation and evaluation of public policy. He conducts research on crisis and disaster management, response, and recovery. His research includes multiple funded studies and diverse partnerships, many of which are within the State of West Virginia. He works actively with nonprofits and many government agencies that focus on disaster relief efforts. Previously, Dr. Eller served as department chair and MPA director for the Department of Public Administration at the University of North Carolina at Pembroke. Prior academic appointments include positions with Texas A&M University and Louisiana State University. A native of Morgantown, West Virginia, Dr. Eller received his MPA from West Virginia University and his PhD in Political Science at Texas A&M University.

Q: *How should we think about preparedness – particularly at an individual level?*

Warren Eller: That's a hard question – mainly because I don't think about it at the individual level for a bunch of reasons. I always think about things from a governmental standpoint and from citizen mandates and also because we're Americans. Americans don't prepare for things. We don't mitigate. That's just not what we do. What we do is we respond. Preparedness is contradictory to the American spirit. It's contrary to the American political system. It's just not what we do.

Q: *Is there anything that might motivate Americans to take steps to prepare? Would people respond better if you gave them money, or supplies?*

WE: One problem you've got is that the people who really need to be prepared are the people who can't afford to be prepared. The 30,000 people who were more dramatically affected by Hurricane Katrina were not the people who could have been prepared had they had the opportunity. The whole idea of social vulnerability is really one of the hugest issues that we haven't found a way to get around.

It's tough to be prescriptive and to give somebody a luxury and tell them to preserve that luxury when that's all they have

at the time. Should you provide people with 72 hours worth of food? Well no, because at the end of the month when the money is tight they're going to eat that 72 hours worth of food. Why? Because they need it more today than compared to the possibility that they might need to have that food to survive through an emergency. And you can't fault them for that.

Q: *How could we tailor the way we talk about preparedness for different audiences? What information is most important for the government, and others who organize preparedness and response efforts, to know?*

WE: I'm not sure tailoring these things better can do a whole lot. Where it can help is the technology for communicating across different mediums. There are dozens of different dialects alone the state of Texas. We need to make sure that we have people who speak the language for the people that might be in the area for evacuation. First responders are not prepared to deal with that. Technology can help with that, and it will improve our response in the moment.

Q: *What would you recommend we do to open up the possibility improving individual preparedness?*

WE: That's a good question. Probably the number one thing I would do is change the way we're doing education for the first



response community. There are basically two fully independent systems in the United States: the NIMS-based system (NIMS is the National Institute Management System) that grew out of ... the ICS, the Incident Command System. Post-9/11 we built a system mirroring that to organize our responses across the United States. The problem is this: firefighters are really great at operating within this system because they use it every day. Law enforcement personnel are pretty good, because they qualify with it once in a while. But it completely leaves out anybody in the healthcare field. So the minute you get a pandemic, a health emergency that doesn't fit the model that NIMS is built around, everything goes to hell.

“ **The biggest problem we have is when people are under stress we revert to what we know.** ”

So, it varies by evacuation point. The National Disaster Medical System, NDMS, runs the medical side of response systems. And NDMS was around long before FEMA got into the business of responding. And it was stand-alone. After 9/11 it was rolled into the Department of Homeland Security (DHS) for a very short period of time. Then it was pushed back out to the Department of Health & Human Services (HHS) because it just didn't fit with the other things DHS was managing. So, we have two response systems. NDMS takes care of DMAT teams, the medical teams, the DMORT teams, the teams that deal with mortality and getting rid of corpses and things like that. They deal with transportation for medical special needs. So

if you've got people in hospitals that need to be evacuated – but not nursing homes. They deal with spiritual care. They also deal with animal care.

These two systems – NIMS and NDMS - work pretty independently. And, about 85 percent to 90 percent of the recovery and response phase are also covered by the nonprofits who weren't included anywhere in there. One of the things that I've tried to do in my career is get a seat at the table for nonprofits. But because disasters are local level events, and driven by local level officials, it depends on the local level emergency operations as to how they are incorporated.

Q: *What would be the best first step that we could take to better align these systems?*

WE: I would say that we need to do is create networking events that build connections before disasters happen. The biggest problem we have is when people are under stress we revert to what we know. We don't pull the plan off the shelf. We don't go to the contacts list. We go to our cell phone. We call the people we know to ask them for help – even if they aren't the right person for the job. The networks that are going to function are the ones that are established before the storm – not during and after.



“Preparedness isn’t a one-time investment. It’s an ongoing investment.”

Ron Klain

Executive Vice President and General Counsel, Revolution LLC



Ron Klain is the executive vice president and general counsel at Revolution LLC and an adjunct professor at Georgetown University. He recently served as the United States Ebola response coordinator and was assistant to President Obama and chief of staff for Vice President Joe Biden. Previously, Ron was partner and practice group chair at O'Melveny & Myers LLP. He served as general counsel for the Gore Recount Committee in 2000 and was chief of staff for Vice President Al Gore from 1995 to 1999. He has also served as chief of staff and counselor to the Attorney General at the Department of Justice, associate counsel to the President, chief counsel to the U.S. Senate Judiciary Committee, and law clerk for United States Supreme Court Justice Byron White. Ron is a member of the Board of Visitors of the Harvard Law School and serves on several nonprofit and for-profit boards.

Q: *When you look at disaster or crisis – health, weather, terrorism or whatever – and you think about the individual level of preparedness, where do you think we are compared to where we should be, particularly here in the United States?*

Ron Klain: I think a hard social and philosophical question that needs to be asked first is whether or not your focus is preparedness for resilience and whether or not preparedness is a fool's errand because to be prepared would be to just have a level of investment in unlikely but highly impactful events, that's irrational.

Take Ebola as an example. So should we have had 50 hospitals ready to treat people with Ebola before Ebola came? We only had three. We ultimately did have 50 at the peak of the epidemic. We weren't prepared. Should we have been prepared? Once we knew Ebola was coming, yeah. But if you're going to get 50 hospitals ready for Ebola, should you get 50 hospitals ready for MERS? Should you get 50 hospitals ready for SARS? Should you get 50 hospitals ready for H7N5? Should you get 50 hospitals ready for the epidemic flu that hasn't yet emerged? Should you get 50 hospitals ready for Marburg – Chikungunya? Where does this stop?

And on an individual level to be prepared means what? It means to have your supply of Tamiflu in case it's a flu and your supply of ZMapp in case it's Ebola and your supply of ... that's a lot of investment. And most of that's going to be wasted. We saw a big preparedness push and billions of dollars spent after 9-11, and again after the Anthrax attacks, and none of that was applicable when Ebola struck. We have spent billions of dollars to have a bunch of hospitals ready to deal with some kind of big, bad disease thing. And only three were ready for Ebola when Ebola struck.

Q: *What is different about how we talk about preparedness, and actually being prepared?*

RK: Well, preparedness isn't a one-time investment. It's an ongoing investment. We go and we train everyone at the hospital what to do if something happens. And that's great. And then the next day the first person quits. And then the next day the third person quits, and by three years later, half those people are gone. And, all the equipment has an expiration date. So you bought 100,000 units of PPE, and dump them all in the trash can, never having used them in three years. And all of the different antidotes and countermeasures have a one-year expiration date. So we spent a lot of money on getting them.



The hard thing is sorting out which of these problems you're going to deal with by preparedness. Most of these problems you can deal with by resilience – by having the capacity to respond afterwards. Often we look at the preparedness thing only through the backward looking telescope. Of the 20 things that could have hit New York in October of 2014 – MERS, SARS, Marburg, whatever – Ebola was the one that hit. Why weren't we more ready for that one? Well because to be ready for all of them would have been an incredibly insane and an intense thing.

Q: *If the concept of preparation – stockpiling materials in anticipation of the next Ebola outbreak or similar – does not make sense, are there intellectual/emotional preparations that we should make that would help instead?*

RK: I think part of the problem is that every one of these things is sui generis a little bit. And the intellectual rigors of preparation are complicated. Let's take the simplest example: 9/11. Some people had been told, had intellectually prepared, that in the event that you hear there's a terrorist activity what you're supposed to do is to stay put. Don't go running outside. People made a conscious decision based on some preparation they had been given that the right thing to do in that instance was to sit at their desk because in fact the real danger is out there. That was bad advice. Some of these people died because they were prepared. They were prepared incorrectly.

So when you're preparing for these super unlikely extreme and unique events general preparation may be helpful, or it may just lead you to do the wrong thing.

Q: *So it's very situational.*

RK: I think the way to run the exercise is this: What are the three things I would want every person to know in the event that any of these bad things happen? It's hard to know what they are, right? There are some general things that people could do. I guess one of them would be have a good supply of water. You can't go wrong with that. But it does strike me that any extremist situation one or more of these things is going to turn out to be a really bad piece of advice.

So, instead, I would focus the resources on – early detection of things and prompt communication of the appropriate response in that event. If we had processed quickly what was happening on 9/11, and had the right way to communicate with people in the buildings, we would have told them, "Don't sit at your desk chair, and don't climb up to the roof." But it's very hard to anticipate every possible scenario. Being able to detect quickly what is happening is the key.

If you think about this in the disease context – since you have the most time to think about them – the scary diseases are the ones that move so quickly. In the end with Ebola – but for three countries in West Africa we had six months to sort out what the right response should be and put that response in place in a way that prevented people in America – after the initial screw ups – from getting Ebola, and taking those people who got Ebola and getting them good treatment. We figured it out. If Ebola had been a fast spreading airborne flu millions of people would have died over the six months while we were figuring this out.



Q: *Communications is key to both figuring something out, and getting people to follow instructions. What do we have to know/think about when it comes to communications?*

RK: There is a question of what the phrase “a trusted source” means and how panic, politics, whatever overrides that. We saw that with Ebola.

Q: *Is it that we're just doing a poor job making sure that people understand what is important? Does each situation require us to start from the beginning and build a new, unique communications plan?*

RK: Part of the challenge is the multiplicity of scenarios. But there is more – having to do with how fear drives certain behaviors. I think we classically believe that in the event of fear we defer to authority. What we actually find is when something big happens people start to negate authority. The whole premise of preparation is based on the idea that people are rational, but they aren't. What sort of communication cuts through that?

Let's take the most painful example we found in the case of Ebola. 70-80 percent of the people who got Ebola in West Africa got it from contracting it during a burial practice. Three quarters to four fifths of the transmission came in the handling of dead

bodies. So in the fall, all the smart people get together, and they say, “This is what we're going to do. We're going to teach people not to touch the dead bodies, not to kiss the dead bodies. Don't do it.”

So the government writes a bunch of contracts to a bunch of people who go to West Africa and tell them not to do that. There

are countless cases of trained healthcare communicators standing at funerals telling people to their faces do not touch the dead body. Do not kiss the dead body. And people touch and kiss the dead body. So respected authority, clear advice, easily executable, communicated on a one-to-one basis – didn't have to read it on Twitter – ignored.

Why? A deeply held religious belief that a failure to touch the body will keep the deceased from going to heaven. What's the communication thing that breaks through that?

Q: *So you need to look at the religious authority in that situation – the person that sets the ground rules? It has to be very specific...*

RK: If I brought you into some conference room, some government agency and said – we need an education plan for fighting Ebola. Here's what we are going to do: We're going to get trained healthcare workers. We're going to get doctors in white coats. And it turns out, actually, what you need is the

“ **The whole premise of preparation is based on the idea that people are rational, but they aren't. What sort of communication cuts through that?** **”**



most influential religious leaders in Sierra Leone to tell people, “You will still go to heaven if you don’t touch the body.” The religious leaders are not on the list of your top 10 public health communicators. But it turns out they are the guys in this instance. That’s the tricky piece to this.

Q: *Each person’s network of influence is fairly easily mappable. We have the ability to do this. But why don’t we approach the communications challenge in that way, creating hyper-personalized plans in these situations? Particularly during disasters – isn’t there an opportunity to tap into the community in ways that wouldn’t otherwise be possible?*

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I think we’re invested very heavily in top-down communication from mass media and it almost always fails.

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RK: Right. But who are the influencers in those situations? What messages resonate with us in these times of crisis – who we’re listening to, what we’re listening to – that’s a hard thing to map in advance of the crisis. Who your influencers are may not be your influencers at times of crisis. So then you may gravitate towards irrational, mistaken, or misguided voices.... I agree with you that disasters are times when you can change people for the good. There are also times when evil people can exploit people for the bad.

Q: *What would be the one or two things you would put as a must-have when considering preparation? And what are the one or two things you would tell us to stop doing it because it’s preventing us from getting better prepared?*

RK: That’s really interesting. I think we’re invested very heavily in top-down communication from mass media and it almost always fails. In today’s media culture there are no truly trusted authority figures. And so the one-to-many communications through that medium just raises anxiety, doubt, people looking for excuses. I think that the idea that you’re going to communicate with people effectively through traditional mass media always fails. So what’s

the alternative? The alternative is this idea that we’ve got to get into people’s influence networks more directly and have some kind of iterative or interactive communication with people.

Q: *Dynamic and contextually relevant that is specific to location.*

RK: Right, again, let’s go back to 9/11. The right answer if you were on the 70th floor the moment after the plane hit or on the 80th floor an hour after the plane hit might well have been different. And just one speaker blasting over like everyone should get to the stairway might have been good advice for half the



people, bad advice for other people. You might have heard that and said, "Actually, there's a fire between me and the stairway. Should I run through anyway or not run through it?" So one message "everyone do X" is not the right message.

Q: *So we essentially have to stop thinking about efficiency, and start thinking about value or impact and saying on an individual level.*

RK: Yes, coupled with the question of your relationship to the messenger. It's the right advice for you based on all the different factors. It's super complicated stuff. Even in the knowns there are unknowns.

Q: *Are we just screwed?*

RK: I don't think we're just screwed. But go back to the disease context -- the key things are super early detection. For the people who are connected, early detection is super, super key. And this is even true for weather, as we know. Our ability now to forecast ... we're saving thousands of lives by much improved forecasting data and to be able to tell people the tornado is actually coming to your street. In the next seven minutes you need to get in your basement. That kind of detection for disease, for disasters, really helps -- definitely saves lives -- and improving the way we communicate about it. Those to me are the two things that cut across a lot of this and are unmitigated goods -- even if not always effective -- but unmitigated goods, early detection and better, prompter, more authoritative, more individualized communication.



*“We’re not political.
We’re just people-people...”*

Joanna McCreary

Director of Rooms, W Hotel Austin



Joanna McCreary is director of rooms at the W Hotel in Austin, Texas. She has spent much of her career in executive and management roles for the W Hotel in major cities, including New York and Atlanta. Joanna managed the re-opening of the W Hotel in New Orleans after Hurricane Katrina, where she also won manager of the year in 2006. Her hotels consistently receive high ratings from guests and staff, and she has been nominated for several awards for her management excellence.

Q: *How do you define preparedness? How do your personal experience [with Hurricane Katrina in New Orleans] impact your thinking?*

Joanna McCreary: After what happened with Hurricane Katrina, our company, and every other hotel company in New Orleans, from a corporate level, re-created their emergency preparedness procedures, particularly from a security standpoint.

Some of the things that we learned were interesting ... of course power is really important. And at the time the W and the Sheraton in post-Katrina New Orleans were the only hotels with a really good generator. And, of course, having access to power was a big deal in operating the hotel.

The other thing that was a big deal was labor. After Katrina, there wasn't anywhere to live in the area for someone who makes \$8 an hour. That's the way our business – particularly in places like New Orleans - survived. Think about the base of labor needed to clean the rooms and staff a restaurant and service the hotel. That population wasn't there. We ended up housing 60 employees in the hotel for at least six months just to be able to operate. We created housing for our own employees to be able to service it.

Q: *What responsibility does a hotel have to take care of its guests when something happens in the community?*

JM: I was in New York City at a hotel during the New York City blackout. We were sold out with 700 guests, and there was no question. Every single leader stayed there 24 hours. These are people who don't know New York City. They ultimately really do want to go home. But there was no power, so nothing worked. In the hospitality business more than anything else – those are our people. They were here with us at the time this thing happened. It is our obligation to take care of them until they leave and go on to the next place.

Q: *Is there any consideration in your planning for how to deal with the different psychological considerations of guests who are away from home, likely to be scared/anxious during a crisis situation?*

JM: Not really. I can't tell you that we have any specific employee training. It's just sort of an innate hospitality feeling – whatever people are going through you take care of them. I would say 98% of people who stay in a hotel are staying there for normal reasons. They're traveling. They're visiting family and friends. And then there's this 2 percent that might be there for different reasons, but they take up a lot of your time and energy. But that's our role. Anyone can stay in a hotel, and anyone can be with you when something bad happens. There's no specific training that says "be empathetic and take care of people." That comes with the territory. And obviously in extenuating circumstances it gets turned up to a level 10.

Q: *Should it be more of a priority to provide that kind of training? Or, does the core idea of hospitality have that built in already?*

JM: The latter. We had someone last week whose dog died. And we have people staying with you because they are in town for a funeral. Whatever is needed we will try to provide. Obviously we have standardized manuals and things. But in hospitality people innately have that sense of responsibility: it's my house, my ship. I'm not leaving until all these people feel okay.

JM: Yeah, 100 percent. The fact that a hotel never closes means that you are a quasi-public space. Anyone can walk in here and use the bathroom, We're a part of the community, and a 24-hour component ... and we're never going to close.

Q: *What has changed about the hospitality experience in the digital age – and what hasn't?*

JM: A hotel is one of the only places left on the planet that has dual line landlines in every room. It's a real landline. That doesn't

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We're not in the profit business when really bad things happen. We're really good at becoming a community member as opposed to a for-profit business.

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Q: *What do you think the hospitality industry could teach others about how to manage in times of crisis?*

JM: One thing that we're very good at if there is a disaster is money. We put money aside. We don't care. We don't charge you for a stupid cancellation. We don't run the room and tax on our hotels when there's a major event. We just literally write it off, and we speak to loyalty forever. We're not in the profit business when really bad things happen. We're really good at becoming a community member as opposed to a for-profit business.

Q: *Because you are open every day, is there a sense of inevitability in your thinking that disasters will occur?*

go away. That's an innkeeper's law. I cannot occupy a room without a working telephone in it. And that hasn't changed.

Q: *What would you stop doing in the preparedness context from a hospitality standpoint?*

JM: The nature of the event will always make the actions different. When I think preparedness I think of things like local politics being crazy and there being a demonstration in front of your hotel. I think of everything . We're not political. We're just people-people, and I think ultimately it comes down to that. Can you get here? Can you leave here? Do you have everything you need here?



"It is possible to use data for preparedness or disaster response, it just requires a different calculus in terms of incentives."

Patrick Meier

Thought Leader, Humanitarian Technology and Innovation



Patrick Meier is an internationally recognized expert and consultant on humanitarian technology and innovation. His book, Digital Humanitarians, has been endorsed by Harvard, MIT, Stanford, Oxford, UN, Red Cross, World Bank, USAID and others. Over the past 12 years, Patrick has worked in the Sudan, Somalia, Kenya, Uganda, Liberia, India, Philippines, Kyrgyzstan, Nepal, Timor-Leste, Turkey, Morocco, Western Sahara, Haiti, Vanuatu and Northern Ireland on a wide range of humanitarian projects with multiple international organizations including the United Nations and the World Bank. He has been publicly praised by President Clinton for his pioneering digital humanitarian efforts. Patrick's work has been featured in the New York Times, Washington Post, Wall Street Journal, The Economist, Forbes, New Yorker, NPR, Wired, Fast Company, Scientific American and elsewhere. He writes about crisis mapping, big data, disaster preparedness, and more at iRevolutions.org.

Q: *Is there a difference in how data can be used in response to an emergency, and its potential application towards improving preparedness?*

Patrick Meier: In the context of sudden onset disasters, people react more emotionally. You see the mainstream media go crazy and the story is all over the place. That helps in terms of incentive. The slow burn disasters, the disasters that aren't sexy enough basically, they don't get people's attention. In those cases, organizers need to focus on recruiting folks who are geographically more proximate to the region, ideally people in country, because they will have an incentive to get involved, and a long term incentive to stay involved. There is more of reward and satisfaction that local contributors feel. It is meaningful to them in a way, that wouldn't be meaningful to somebody who is on the other side of the world, who still wants to do good, but doesn't have that emotional connection.

A good example is Humanitarian OpenStreetMap – and what they have done in Indonesia, where they work directly with local universities, schools, and students. Another thing Humanitarian OpenStreetMap has shown is you can crowdsource the creation of maps for disaster preparedness and risk reduction.

It is possible to use data for preparedness or disaster response, it just requires a different calculus in terms of incentives.

Q: *What are the data points that you think are particularly important in organizing a disaster response?*

PM: What I'm particularly interested in is local. Self-organizational mutual aid, mutual help, and how that can be facilitated. It's already happening. It has happened forever. First responders, by definition, are the local effective community. For example, there was a report from the Haiti earthquake a couple years after the earthquake that made the link between resilience and the capacity for self-organization.

Q: *In a disaster, motivation is not an issue, full community participation seems to naturally occur. That is not the case with preparedness. Is the key to people becoming motivated to prepare more about education – appreciation for the potential impact it could have?*

PM: I think it's about community engagement and community empowerment. One question I would ask: is there anything about mutual aid that prevents mutual aid from happening in sudden onset disasters? I don't think so. Why couldn't creating greater



resilience and capacity to get out of harm's way, to weather the storm, to mitigate the impact of hazards on livelihoods, serve as the same motivation? Why can't that be a process that is also facilitated through self-organization and mutual aid? I don't think logically there's any reason not to.

Perhaps the biggest challenge is whether the incentives are pronounced. The incentives are not as visible. And doing preparedness today is diverting resources and time, and allocating resources to a hypothetical crisis in the future. How do you make that tradeoff? It is much harder to invest for the future, rather than using what you have now for the present. That is especially true if there is not much in terms of resources to sustain yourself in the present.

Q: *Do we need to standardize our approaches, the way we talk about disasters (and preparedness) to improve the way we approach those challenges?*

PM: Not having that makes it more challenging. The Red Cross did a survey a few years ago, strictly the United States, that showed that social media users expected the Red Cross to respond to an urgent need. They expected that if they post on social media, within a few hours, within an hour or two, The Red Cross would respond. And that really freaked out the Red Cross. There are now all these other media channels that are not formal communication channels, like 911 and so on. But people, nevertheless, expect The Red Cross to be monitoring those channels, and responding accordingly. It certainly adds a level of complexity. There's absolutely no doubt about that.

But it's not only the diversity of social media that's an issue. It's also just the volume of information coming through these different data sources, and different types of data sources. They're not only just dealing with tweets, but also potentially pictures and videos, and all of that.

So, it absolutely makes it a lot more complex. Which is partly why, a couple years after the Haiti earthquake, I thought to myself "well, surely there are some folks who have been thinking about these issues, and starting to develop solutions." And sure enough, it's folks who have been doing advanced computing, and who have PhDs in computer science, and data science, who have been tackling these similar issues in different domains and different industries. That level of increased complexity does require partnerships and collaborations with people that have the skillsets. Humanitarian organizations have never had to deal with this kind of data overflow before.

Q: *How much of the challenge today is about having access to the best data, and how much is about our ability to analyze it quickly and make good decisions?*

PM: In general, I think all humanitarian organizations are behind the curve. And that's not meant as a criticism. That's the reality. They've never had to deal with this kind of complex information environment, and they are not even resourced to try and address this new challenge. But that's also the nature of innovation. The humanitarians don't tend to be early adopters of technology, never have. There are all kinds of other issues that come up: bureaucratic issues, legal issues, liability issues.



When the lawyers get involved, with respect to using the new technology, it can be very much slow going.

There are occasional exceptions - usually due to an individual within an organization that happens to be savvy enough to know how to circumvent authority, or to manage a system from the inside and help prototype new ideas and technologies. But in general, I would say it's just the nature of large bureaucracies that they are behind the times.

All the rules and processes are there for a reason. But at the same time, it will slow the possibility of mainstreaming innovation down considerably.

Q: *Where should we be focusing?*

PM: Ultimately, I think it's less to do with technology or the data. It has to do with the leadership, policymaking, and the resources. Right now, maybe 80% or 90% of funding goes to sudden onset disasters and only 10% - 20% goes to preparedness. It should be the other way, right? And that's not to say that it's easy to change.

For sure, there are all kinds of other dynamics, entrenched interests. The humanitarian space is already more overstressed than it's been in a decade. So, how are you going to shift resources that need to go into saving lives today, and providing refugee assistance and instead say "no, no, we're not going to invest in preparedness, and, oh well, for the folks who are in the middle of a disaster right now." It's just the classic fireman

approach, where you're just trying to put out fires, and you have no time to actually think about something more sustainable.

Q: *How would you suggest we develop the necessary data culture, the acumen for analyzing data, the understanding of context necessary to do better humanitarian response and preparedness?*

PM: Education.

Q: *Do we need a special area of education specifically devoted to studying disasters? Do we need aggressive efforts to share intelligence across sectors? How should we tackle this education challenge?*

PM: I think it's just a core competency. I'm not an expert, but I know that there have been internal conversations within the United Nations, at pretty high levels, and other organizations, about creating a new generation of humanitarians who have data science backgrounds. They understand the importance of having that expertise available in-house, and to building that capacity and skillset in-house, while also leveraging partnerships. They're not looking at it as necessarily an either/or proposition.

My bias, ultimately, is towards partnerships, partnerships, partnerships. It's not reasonable to expect humanitarian organizations to be experts in everything, especially as the world becomes more and more complex. That's not going to scale. Instead, work with the best data scientists. Embed them in the humanitarian organizations. And of course, if you have resources



to spare, get the humanitarians to spend a few months in Silicon Valley, or wherever they need to spend time.

Ultimately, it's about embedding folks with the expertise in computer science, and data science, and everything else, inside humanitarian organizations. There is a full-time data scientist as part of the UNICEF innovation lab. He's never worked in the humanitarian space before. But boy, has he been learning

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It's not reasonable to expect humanitarian organizations to be experts in everything, especially as the world becomes more and more complex. That's not going to scale.

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like heck over the past year, and is a really smart guy, and understanding the opportunities and so on. But it's like learning another language.

It does take some time to figure this out, and to really understand what the core challenges are, the issues with datasets and so on. That's why my bias is towards partnerships. One shouldn't expect a computer scientist to be an expert in humanitarian response. Just like a humanitarian should not be expected to be able to

develop amazing code in four different computing languages overnight. I think there has to be a cross-disciplinary relationship. Easier said than done. It's not automatic. It is challenging. There's no doubt about that.

Q: *What should we stop doing?*

PM: That's a really interesting question. There are two thoughts that come to mind. One is from my book and my interest in the digital humanitarian space: Any data processing, information management, data entry tasks that can be done remotely should be done remotely. Taking the burden off humanitarians on the ground, and saving them from having to do all kinds of data processing, information management, and doing that remotely by crowdsourcing or other methodology would make a big impact.

The other thing, which is not new, but which may be a little more out of left field is about how you respond more locally to disasters. The issue that happens when you've got a major disaster, and you've got supplies being delivered from the outside, imported in from warehouses across the world, is that you completely warp the local economy. There's a huge problem, in terms of the economic impact of that kind of aid. We can shift towards more of the mentality of building or helping to establish – of getting the local economy back on track, whether it's the agriculture or whatever else, instead of importing. Actually using this as an opportunity for a business opportunity, a local business opportunity. So that the relief aid doesn't come from 1,000 miles away, but maybe on the other side of the country instead.



“Something that is lacking today is future casting and fore-sighting. ”

Lionel Mitelpunkt

Catalyst, Generation Cloud



Lionel Mitelpunkt focuses on education, creativity, and communication in the interest of connecting people and solving problems. He works to enable individuals to collaborate and do good for themselves, their communities, and the planet. Lionel is an active member of many communities, including TEDx Israel, the Muslim Jewish Conference, Burning Man, Midburn-Israel, Inspiration Arts for Humanity and Israeli Innovation. Lionel is also an educator, speaker and mentor in various programs, such as a future scientists and innovators program at Tel Aviv University, numerous hackathons, and Elevation Academy's community management course. Lionel's various experiences led him to launch Generation Cloud, where he wishes to catalyze and connect leaders and projects around the world.

Q: *How do you actually build a community around something that people don't realize they're interested in yet?*

Lionel Mitelpunkt: There is a story my dad tells about the first Gulf War in Israel. I was three years old, and I have an older brother and older sister. So it was two of my parents, my siblings and me. Everybody had their own role on what their responsibility was in case of emergency. My sister had to go get the keys to the shelter. My mom had to bring the covers and the headsets. My brother was in charge of the gas masks and I went to my dad, and asked, "And what's my role?" He had to invent some role for me in the case that something happened. I think responsibility is a big part of it. We need to identify and have in mind that in case something happens I have a role, which is known to the leader of this community, so if something happens to me they know 1) I'm missing. 2) What role needs to be covered.

Q: *Does the idea of making preparedness an individual action undermine the ability of an entire community to become prepared?*

LM: The idea is to first identify the roles that you need within your community. You need somebody to open the shelter. You need somebody in charge of water. And then assign those to specific individuals. But have it broken into tiny tasks and also responsibilities and roles. From that you can build an

organization. Now you have somebody specific doing an activity, but you understand what you need to do in case of emergency.

I think a big part is simulation. Let's play the "what if" game in case this happens now, and have it as real as possible. That could be through playing SimCity and running a disaster and seeing what people have to say and going back, debriefing. Asking "How did you handle it?"

A lot of people have never suffered disasters. Something that is lacking today is future casting and fore-sighting. Disasters are a big part of this. We're being trained to just leave the room in case of emergency and go to the nearest exit. Nobody speaks to us about what to do when this happens.

Q: *Can you create general simulations and still have them be effective, or do you have to create hundreds of different simulations so that people can have a sense of the specific experience they might eventually face?*

LM: When disaster occurs it's just like different books. It's different narratives. It could have been a flood, but it was a hurricane. We can never really know what it will be. I want to prepare people to be something – to play some role - and not just to shut down when something bad happens. I don't



necessarily need to know what will happen to me because nobody can tell me that. But I need to think of the different ripple effects and where I fit into everything.

Q: *Can you differentiate the roles so that everybody can be deliberately interconnected?*

LM: Especially when it comes to disaster, it's about leveling the playing field. Let's create spaces that are neither yours nor mine. If my role is to bring blankets and make sure that space, say a community center or school - is prepared, and your role is to open that space and distribute supplies, we're equals. It's input-output. Everyone has a role.

Q: *Are there behaviors in our lives – interactions with brands or social connections online or media consumption, watching television, reading the newspaper – that can be effectively mined for the types of intelligence that we would benefit from applying to preparedness?*

LM: Movies are a great way of educating, teaching. I don't think as a society we are exposed to or educated enough about disaster products. I don't know what to eat that will give me the best nutrition for three days if I'm stuck somewhere.

Q: *What do we need to stop doing?*

LM: Blaming each other. We must – as soon as possible – find agreement. Once a disaster has happened, it doesn't matter if the government was prepared or not. It doesn't matter if my neighbor calls me 10 minutes before or if you remembered to

bring the kids something. This is the situation. This is it. Open your eyes, take a deep breath. This is reality. Now start acting.

The only thing that I would try and advocate for and demand right now for preparedness is the resource of time. Whether it's a school or Google or a library – everybody needs to have preparedness slots scheduled and do something with that time – whether it's mental preparedness, EMS training, training about

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I don't think as a society we are exposed to or educated enough about disaster products. I don't know what to eat that will give me the best nutrition for three days if I'm stuck somewhere.

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how to break open a door. Give me some skills. I need to have a skill set that might be useful because we all need to be ready for anything when this happens.

Q: *Are there some activities that should be prioritized during those times?*

LM: I would go for a fine balance between quantity and quality. If radio can give me 30 seconds throughout the day to talk about



preparedness I'll take it. It can be full-day trainings that Google gives to its entire enterprise throughout the world. Or maybe do a one-hour TV show every month. Some mix of those will start to have an impact.

We need to understand what the network looks like, what the different roles are. And then if we have 20 people for 20 roles, that's great. But if we have five people for twenty roles, we still need to prepare. We need that someone in charge of clean water.



"It's a fool's errand to...pursue behavioral change. What's... important is to understand the behaviors in which people already engage."

Jonathon Morgan

CEO, Popily



Jonathon Morgan is CEO of Popily, an interactive data discovery platform that allows users to browse answers buried in data the way they browse movies on Netflix. The system learns from users' behavior and figures out which answers it should recommend next. Previously, Jonathon ran technology for CrisisNET, an Ushahidi initiative to build a platform for the world's crisis data, giving journalists, data scientists, developers, and other makers fast, easy access to critical government, business, humanitarian, and crowdsourced information. He works on data science and data journalism projects through his interactive agency, Good at the Internet, and, in his spare time, co-hosts Partially Derivative, a podcast about data science and drinking.

Q: *How would you improve our approach to preparedness?*

Jonathon Morgan: I think one of the things you can do when you have a ton of information is that you can start to get a better idea about what people already do. And so when you're looking at a user experience problem you always have to start with how people already behave and then see if you can support that effort or improve that effort or work with them in order to prepare them in the way that they're already preparing themselves. What's always tricky is changing people's behavior. And what I see a lot from disaster preparedness right now is a kind of top-down imposition of, "Well we've already thought all this through. We know how the best way to do this would be." And thinking about those efficiencies in a vacuum as opposed to responding to the way that people are already engaging with this problem themselves I think ultimately results in the kind of disconnect that you see where lots of people fall through the cracks because they just don't participate.

Q: *How would you measure the difference between someone's current set of behaviors and a set of behaviors that you think are more constructive?*

JM: I think it's a fool's errand to actually pursue behavioral change. What's actually more important is to understand the behaviors in which people already engage. What's the existing

support structure that they have? How do people already rely on their community for support in a time of crisis? What do people choose to do when a crisis hits? And then can we augment that somehow – give them more tools to respond to the crisis in the way that they believe that you should.

I think that's important for two reasons: one, it's unlikely that people will change their behavior just because you tell them to. And two, they're the ones closest to the problem. So while you may understand at a high level of how a flood affects the region, what you don't understand is how these people need to prepare themselves based on their personal subjective experience in their area, based on the things that they value, the things that are most important to them, whatever their priorities are.

The best example that I've ever seen is in Nigerian flood response. They faced this problem that people wouldn't move when a flood was coming to probably destroy their village. The flood plains in Nigeria often affect people who are in outlying areas. They're fairly isolated. It's difficult to communicate with them. They tried broadcasting things on television. They tried broadcasting radio announcements - but that turned out to be really difficult because not a lot of this stuff has names in the area where they are. So, people don't really take the threat seriously. What they ended up doing was finding one individual in the community with whom they could share a more complicated



evacuation strategy. They taught that person to draw a map of the region, a map of the area so that they could visually communicate to their peers, to the rest of their community how they were going to prepare themselves for the flood, how they were going to move and why that was important because that was somebody who already understood what was prioritized and valued in that community.

So it was a particularly influential channel for communication. The social structures that already existed using hand-drawn maps – a very kind of unsexy, not particularly technological response – no drones, no smart phone apps, no free tablets – none of these things that are traditionally thought of as being part of this next generation of disaster response. But it was the most effective way to save people's lives.

Q: *How would you scale that type of effort?*

JM: That's a big question. But I think we're in a unique position in history to be able to answer it. Because of the way we're all connected to each other explicitly – the way that we communicate on social media is probably the biggest and most obvious example – we've already implicitly defined who we think the most important people are in our networks at any given time. It is already possible to work backward from that and identify who are the most important or the most central or the most essential communicators for a given group of people, and then use them as conduits for the message that needs to be communicated.

The right person often emerges out of a situation. It might be that the most "important person" that I follow on Twitter is

a celebrity at the moment. Everybody follows them. But, if a flood were to run through the streets, ...whoever it is that turns out to have the most valuable information at that time is going to emerge. What we're able to do now with the technologies that are available is rapidly identify that person and be able to leverage their credibility in a given space or whatever it is that we need to do to get people from Point A to Point B or to get them to prepare themselves properly or just to behave in a way that keeps them the most safe.

Q: *How do we figure out how to adapt what to say different disasters or for different people, or both?*

JM: I think that's a valid question, and the adaptability of the messaging or the content that we need to provide the people in a crisis situation is important. But that still assumes a kind of top-down approach. The opportunity that we have as technologists is to give people the tools to self-organize. And that's something that people are now doing all the time. We have an entire sharing economy. There is the startup incubators that have Uber for X and that's their entire model. They only want companies that are basically modeled after this idea that we can all share a resource and then build a business on top of it.

I think you saw people self-organizing in this way in the aftermath of Super Storm Sandy in New York where people were giving up their rooms that they'd already put on Airbnb so that people could come stay for free because they needed to quickly move from one part of the city to another. I think that that's the kind of on-the-fly planning that has to happen because you can never really understand the nature of a disaster far enough in advance



to tailor your message appropriately in exactly the way that you need, because it's so specific. The context is so specific to each disaster that what we really need to make sure we can do is give people the ability to be creative and to communicate effectively and to build their own plans on the fly.

Q: *How could we get more – or even all – people to be willing to participate?*

JM: Right now, I think we are mostly appealing to people who have a self-interest. Those are the people that end up using, say,

sourced sharing economy type models that you're seeing are very popular in the consumer startup space. Applying those to disaster relief only means that we spread the net wider and we have the possibility of helping more people in a way that's organic and flexible and allows them to be creative and make a lot of their own choices ... people who are opting out of the top-down messaging because – for whatever reason – it doesn't resonate with them.

Q: *So, rather than saying we need Uber for disaster preparedness, it's actually more Uber for disaster preparedness for those people*



You can never really understand the nature of a disaster far enough in advance to tailor your message appropriately in exactly the way that you need, because it's so specific.



a sharing service like Uber or a sharing service like Airbnb or whatever – people who recognize that maybe they save money. Maybe they get to where they're going more quickly. Maybe they just enjoy that experience more than they do staying at a hotel or taking a taxi or whatever. That is the role that technology can play – to improve efficiency and big operations and use data to recognize where you can optimize your processes and things like that. For the top-down approach those are fine.

We're already helping a significant portion of the population using the approaches that we have. The more disruptive crowd

who are not currently participating? For those people who are responding to the current approach, nothing changes?

JM: Yeah, but they have to connect. It is important for us to always remember what number we are trying reach. There's some number that needs to get bigger for us to know that we're being successful. Is it that we want to increase the number of people who aren't displaced during a crisis? Do we just want to increase the number of people who survive a particular crisis? And as long as we're all focused on that then we're fine.



Looking at it from that perspective then suddenly it doesn't matter so much exactly what we're doing because we can be creative in pursuing that goal. We might use a handful of strategies. I'd like to see us doing more testing of different hypotheses and iterating on solutions. We should take things that are working in the consumer space, and especially in startup technology, and apply some of those ideas and test market them in a crisis because it's certainly not going to hurt anything.

Q: *Are there particular social behaviors or technologies that are baked into our society at present that we could do more to utilize to support preparedness?*

JM: What you see Google's disaster response team doing is really novel. They're opting to give up some of the space on the Google home page and do contextually relevant disaster warnings that they pull from different U.S. government agencies. They have a handful of different data sources that they use to broadcast this message to millions and millions of people. And the reach that they have is almost unimaginable, and so the impact they think I have is similarly enormous. We are starting to see Facebook participate in that. We are starting to see Twitter participate in that. What I'm happy about is that these organizations are starting to move past the political divides, the fact that they're all competing with one another for access to users and access to user data – and they're willing to share information and communicate across platforms for this one purpose of making sure that everybody stays safe. That is really encouraging. That's an area that we're just starting to tap into that I think we can definitely improve.



“How can you enable communities online to... help unleash knowledge?”

Lucian Tarnowski

Founder and CEO, BraveNew.com



Lucian Tarnowski is Founder and CEO of BraveNew.com, an enterprise platform that enables organizations to connect, engage, and develop stakeholders around important concerns, including veterans, STEM, women, diversity, health, sustainability and leadership development. BraveNew helps its clients break down knowledge silos through peer-to-peer learning communities. The company has been awarded Best Advance in Social Learning Technology by Brandon Hall Group. Lucian also runs Take Heart India, a 50-year-old charity, started by his father, that provides blind and handicapped people in rural India with vocational skills to gain lifelong employment or start a small business. Lucian sits on the board of Innovate Educate, has served on the Steering Board for World Economic Forum Global Agenda Council on Talent Mobility, has been honored as a Young Global Leader (YGL) by the World Economic Forum, and was a winner of the Global Enterprising Young Brit award.

Q: *What do you do? What is BraveNew?*

Lucian Tarnowski: We're a platform for social learning. We facilitate learning online, and we do it through communities. We're not the community builder ourselves. We are the platform on which communities are built. So we sell to companies like Lockheed Martin, GE, Genentech, Mercer, Dell Medical School and others. They already have an audience. They may be doing some form of communication with that audience, where they push rather than give the audience any kind of ability to enable themselves to become participants. Normally they're consumers of content. And what we do is we provide an online environment for that community. And it becomes a kind of community of purpose where everybody has a common goal, a common purpose connecting them.

The actual activity in the community is learning and knowledge sharing and sharing best practice, collaboration – that sort of thing. Our first community was created by Lockheed Martin for veterans in transition.. Lockheed has curated over 10,000 different resources from across the open web that are all specific to vets making a successful transition from the military into civilian jobs. This community is all about people with that common goal. The community is designed for people who say “I

want to make a successful transition. I want to make the best use of my skills. I want to find something of purpose after leaving the military.” We're that platform where they can do that.

Q: *So, the platform was created around a principle that community is necessary or beneficial to how people learn?*

LT: Correct. My dad got polio while he was setting up an education travel company in the '50s. He was writing guide books at the time. He got polio, and he spent all of his life in a wheelchair. He quickly realized that the majority of the people that were disabled didn't work – they were maybe 10 percent of the world's population and there weren't good job options for most of them.

He started looking at vocational education solutions to get handicapped people into employment. And the model he ended up with was basically community-based learning programs that were training handicapped people to be mechanics, shoemakers, tailors, electricians, work in repair shops – that sort of thing. My dad felt quite strongly that if you're not able to be an active contributor to your community, it is very hard to have self-respect or dignity. It's very closely connected.



I grew up around the idea of community-based education. I was fascinated by the model – particularly its focus on getting people as quickly as possible and efficiently as possible from education to employment. The focus wasn't education for education's sake. The purpose of the training was to get people skilled up to get employed as quickly as possible.

We're trying to figure out how to apply online communities to enable that knowledge transfer. If you take a kind of anthropologist's view of this, humans have always made sense of their world through communities they belong to – and still do.

what people are learning informally as they're learning it. You have to capture that. Right now there's a general belief that in the workplace 70 percent of what people learn is on the job, 20 percent happens through informal learning, and 10 percent happens through formal training. Through communities we try to connect the 70 to the 20. A lot of the preparedness training would fit into that 10 percent - the formal training. How can we capture that tribe knowledge that is the other 90 percent? Perhaps we're not rewarding people for sharing it? What methods have we got that we can reward people? Communities are a good answer to that question.

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Humans have always made sense of their world through communities they belong to – and still do.

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Now we have the internet, which is arguably the greatest learning tool ever. The question we are trying to answer is how can you enable communities online to be the best they can be, to help people reach their full potential, to help unleash knowledge? How can you use the idea and the power of community to reward people for sharing that knowledge?

Q: *How do you take a community – people who are connected, by geography or shared interest – and have them take the same actions?*

LT: I think one of the big opportunities that happens in these communities of purpose is you can begin to track and reward

If you look at historic villages they were very, very good at passing on wisdom from the elders. They had initiation rituals. They had rites of passage. They were all about trying to pass on that wisdom from the older groups to the younger. Society has lost that quite a bit. There's an opportunity around preparation and building the culture of preparedness through tribe knowledge, through informal learning. How do you reward that behavior? You recognize people in the community as experts. You promote what they're sharing because people want their stories. They want it to be grounded. And that's a good way of doing it.

The other thing we do is we score people's contribution and value to the community. If you share something that's of real



value in this preparation environment, the more people learn from that idea the higher your score. We're constantly trying to reward people for creating value in the community.

Q: *How long does this kind of learning take? How do you keep it from becoming a situation where only a very small number of hyper-involved people participate, while the masses miss out on the benefits?*

LT: It's informal learning, so there's not a defined start and finish. That's actually a big problem because most people are not accustomed to learning that way. Most people are not self-motivated learners. They are more comfortable with a highly structured learning environment.

Q: *What are the types of things you could only learn in an unstructured setting?*

LT: With informal learning, content can come from any source - including you. So the most important thing is that you're a participant, and you're able to be a contributor. In fact, the actions you take in the community are contributing to the curation of your community. So just by you looking at something you're helping to curate it. If you find value from it we can presuppose that other people might. If other people do we can presuppose that others will, and over time we can create recommendations based on that.

All of it is personalized. This is for the individual. It's dynamic. It's based on their choices. At any one point you're presented with different routes that you can go down based on your

interests. And people don't have to end up all at the same place. It would be difficult to end up at the same place, and that's where the community is needed - to share its wisdom.

Q: *How do you teach preparedness?*

LT: People don't particularly enjoy going to school. They also don't retain that much information. They don't feel that they are participating. They don't necessarily feel empowered. But if you flip the model on its head, and you say, "Look, we want to empower everybody in this community. We want to empower everybody to be a teacher and learner at the same time. We want you to share what you know about this, and we want you to learn from others that know. And we want to recognize these community heroes that maybe have been through this and maybe have something that we can all learn from." In doing so you're creating an environment where people feel like participants. They feel that they have a say and that they have something to add to the community. And when they do they're rewarded for it.

Q: *Are there absolute things that are needed for one of these in formal learning environments to succeed? Do you need a critical mass of people? Do you need a certain number of variations on the learning path?*

LT: This is a really good question. This works better in some scenarios than others. It is very hard to build a community without a community manager. Communities can get to a stage of maturity where the requirements on the community manager reduce dramatically. But in the early days when you're trying to get from creation through infancy to maturity you need the



community manager to be introducing, to be promoting, to be connecting -- to shepherd good behavior and highlight it. So community management is very important.

Content priming – making sure there's content there before you go and invite people in because the fastest thing to kill a community is no content. Thinking about who your influencers are and inviting them in first.

Communities are made up of constituencies, and these different groups have different needs from the community. And if you invite one group that has a need from a different group, and you invite the different group in after the first group, that first group won't work because they don't have the second group that they need. So mapping community journey is really, really important. And so what we go through with all of our clients is this whole idea that a

community experience should actually be a journey. It shouldn't be something that's there in perpetuity. Your experience of community should take you from somewhere to something, and it's got a purpose.

Q: *What would you tell people to stop doing - because it undermines the potential for this informal learning to happen?*

LT: As a society, we're too caught up in credentialing. The unfortunate reality is that your professional capabilities are your summary of what's on your resume – and what that means is that human capital is the world's most wasted resource. The vast majority of people never reach their full potential. What are we doing wrong? We're relying on a school system that is out of sync with demand.

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People don't particularly enjoy going to school. They also don't retain that much information. They don't feel that they are participating. They don't necessarily feel empowered.

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If you think of human capital as an asset class... in this marketplace you've got demand on human capital, which is jobs; and you've got supply, which is people. The education system, I would argue, is the world's largest middleman between supply and demand. So you've got an education system that's meant to be preparing people for work, but it's doing an increasingly terrible job of it.

It's pigeonholing people in a way that isn't maximizing their individual potential. So, I think we should stop pushing people into very narrow channels based on credentialing, and by doing so, undermine their potential.

I also think we should do more to democratize access to education – make it cheaper, go from high cost, high touch to low cost or no cost and low touch. There's been a huge amount of buzz around MOOCs and all the online courses. My personal



feeling is we're kind of at risk of what I call the "Animal farm of education" – in reference to George Orwell – in that all we've done is take the same type of education, course delivered, sage on the stage, teacher classroom, and we've changed the medium. We changed the delivery platform. In my opinion, the real revolution in education is actually enabling everybody to be a teacher and learner at the same time – to enabling everybody to be able to be a participant and contributor based on their unique skills and strength and passions and interests. The thing I think society could be doing more of is personalizing the academic experience – rather than just having Khan Academy, what's the everyone Academy, what's your academy -- and how can we all be motivated and rewarded for sharing what we're learning, as we're learning it, and sharing our experience as we're developing it and creating better systems for capturing and rewarding that.



“We need to do a better job explaining the problem, without scaring people.”

Maggie Windsor Gross

Director of Brand and Digital Strategy, Havas Worldwide



Maggie Windsor Gross is the director of brand and digital strategy for Havas Worldwide. Her goal is to find ways to turn risks into opportunities for brands through both internal and external communications and she thinks empathy and education can solve most problems. Previously, she did planning, digital and brand strategy for Digitas and was a communications and media strategist for PHD Worldwide. Maggie worked on the global digital strategy and site redesign for Samsung—including the launch of the Galaxy phone, the partnership between Coca-Cola and the Special Olympics, the first-ever advertising campaign launched by Starbucks, and American Express OPEN and Small Business Saturday. She also founded and runs Flex Aid, a charitable organization that connects unused FSA funds to the medical supplies that health clinics need most.

Q: *Can we create community, or a movement, around disaster preparedness when there is not a disaster to galvanize that conversation?*

MWG: It's a really good question. From a disaster perspective, being a brain nerd, it's really hard to train your brain what to do in one of those instances. It's fight or flight. But I think of this thing called the amygdala hijack – like when you're doing a public speaking engagement and you get nervous. You can train yourself to get less nervous when you speak, through practice. We need to do a better job explaining the problem, without scaring people. We need to make it feel personal to them. Because right now it feels like we're all not prepared. The more personal you can make it the more likely someone is to act.

Q: *What are the general behaviors that you would want to emphasize? What are the underpinnings of movement in terms of people's emotional reasons for wanting to join them?*

MWG: You start with a problem; you use media to gain support, usually through empathy of seeing someone else's pain because you want to act on their behalf. From there you give people a role. That's a typical movement. But I think a really important thing is focused leadership. Disasters strikes small communities and large communities, but more importantly, they strike one

place at a time – and people connect with that. It's a lot of like having a bit of a tribal instinct to protect where you came from, where you live, or because you identify with the struggle of those people.

I also think we overlook the power of training children. I know that might sound like a little evil, but I think that a lot of what happened in recycling is because schools train children to care. You would have kids come home from school and say, "Mom, Dad, we have to recycle this." And their parents would say, "What are you talking about? I don't want to recycle this." And then the kids would get all excited about it. Kids get excited about this kind of thing, and especially as kids are around eight years old... they start to make things part of their own identity, and they want to be a family leader. I don't think I'm the most prepared person, but a lot of my training in preparedness came from when I was a kid. It becomes second nature at that level, and you bring it back to your parents.

Q: *How do you have a unified movement or a clear direction if the relationships that you have to create to influence people are so varied? How do you ensure that there is a throughline in the idea of what preparedness means even though each generation, each cohort, is going to have to interact with it differently?*



MWG: As a brand strategist my job is to help define the personality of a brand and make sure that personality shines through to whoever they're talking to. Take Brand X – what you might do with that brand is you would say, “Okay, we're going to target typical moms that drink coffee. And then we're also going to target tech-focused people that are coffee snobs. And then we're also going to focus” You might have five different people that you're actually targeting, but a lot of that doesn't necessarily impact the actual umbrella message. It might impact the bullet points underneath of why that person should care. But what it really impacts is where you put it.

So the “what” and the “why” stay the same and the “where” and the “who” are the things that change. If I were starting from scratch I would want to talk about who are the people that are at most risk? Who are the people that are most likely to be on our side? You might have three in each of those columns and try to figure out how to use the people in one column to influence people in another column, how to give the people in one column a specific role, and reach them through media where they're most likely to be reached. But I think the message should stay consistent. That starts by understanding the true DNA of what you're really trying to say.

Q: *In the building of a movement, how prescriptive do you feel that direction needs to be? Is there room for variability and the human adaptation without losing the core structure of the brand or the movement?*

MWG: It's a little bit of both. If you look back at the civil rights movement, it was like, “Hey, we're going to get together, and

we're going to march on Washington to show Washington that we care about them passing these bills.” And what people were told to do is show up here, and we're going to walk. That's a very clear “what to do,” and some people brought 10 people with them. Some people made signs. So people will choose to go above and beyond or maybe to do a little bit less. When you see movements fail it's when people aren't given explicit instructions.

Q: *How do you apply that specifically to disaster preparedness? What isn't working about how we direct people to take actions to be prepared?*

MWG: I don't think the problems are functional. I don't think the preparedness information isn't accessible enough for people to go find it, or that they just don't want to type in www.Ready.gov. I think it's an emotional issue. Planning for a disaster isn't fun. It's like buying life insurance. I have to realize that I could die. Or I have to plan for something that's not fun. And people like to put that off until the last minute. The government of Sweden – and of course Swedish people are very different than Americans – do a really good job. It's a small country, but they do a really good job of mobilizing their people with quirky little funky sorts of things. It's a hidden way to make people do something.

Q: *Do we not understand what makes Americans do things on an emotional level – and how to tap into that?*

MWG: At our heart we're still just children inside. We may look at the world a little bit differently and have more responsibilities. But if you can turn that on – that curiosity – I think people will get excited, and it'll turn into fun. As silly as that sounds,



disaster preparedness could turn into fun. The way that I approach my job, because a lot of times I have to get a creative team really excited about something that might not be exciting – like stain removers or laundry detergent – is I try to take people through a story as if they were going to a science museum. You'll learn a little bit, but I'm also going to let you experience it and maybe blow your mind in just a little way so that you get really excited. I would do the same with disaster preparedness. How would you teach an eight year old? And then just don't make it in primary colors.

batteries," and "I'll grab the cat." It's cute. It's fun. It definitely makes you realize – "Oh crap. I actually wouldn't know what to do." From an ad perspective it's definitely doing its job because that is the job of awareness and to get you to think a little bit differently. I don't think there's anything wrong with that. But after that, you have to tell me something more you want me to do. And that's when I think it starts to fall apart.

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Planning for a disaster isn't fun. It's like buying life insurance. I have to realize that I could die. Or I have to plan for something that's not fun.

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Q: *What should we stop doing – either because it is sucking up bandwidth and not actually accomplishing anything, or worse, undermining the likelihood that we're going to make sufficient progress towards the goal of creating a more playful environment through which to learn?*

MWG: I live in New York, so I see the ads – one has a four square of family members and its says "I'll grab flashlight with dead

