

The Virtual Field: Remote Crisis Mapping of the Haitian Earthquake

Nona Lambert with Sabina Carlson

Abstract

The Ushahidi Haiti Project (UHP) is a crisis mapping organization operating out of The Fletcher School of Law and Diplomacy that uses a platform created by the Kenya-based NGO Ushahidi. UHP maps citizen-generated information in a timely, accurate, and accessible manner to inform both the humanitarian response and post-disaster reconstruction efforts in Haiti. UHP is working to transfer the Ushahidi Haiti Platform to Haitian hands by summer 2010.

There is a natural inclination among non-techies to assume that technology is impersonal. Technology has its own language and culture that can seem intimidating, and it suggests a technocratic approach that lacks a human face. Anyone who has worked with mobile technology in the humanitarian or development field knows that this does not have to be the case. Finding creative uses for technology epitomizes getting your hands dirty, meeting people, and negotiating practical realities on the ground. Many of the hundreds of volunteers who joined the Ushahidi Haiti Project at various phases in its development had no experience working with technology-driven projects; and, in the beginning, there wasn't much time to train new people. New volunteers walked into a room full of individuals working intently on their laptops and gradually discovered how personal this work was, and how much it was built on a foundation of relationships and networks. It was incredible how the sense of disaster permeated our work space, how people far from a crisis could feel so connected to it, and how much our work resonated with the earthquake-affected people of Haiti.

The Early Days: Jumping In

The early days of the Ushahidi Haiti Project were a blur of activity. Graduate students were running in and out of the Fletcher dormitory stamping snow off their shoes, sitting

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down in a crowded living room, and melting into the virtual world of their laptops. We were overwhelmed by the scale of work and the immediacy of need. It felt impossible to leave. One person would be ordering pizza, another fielding a request from the World Food Programme, and yet another talking to the media—but mostly, we sat in silence reading media reports and text messages from Haiti; struggling to find exact geo-coordinates of addresses on maps that had no street names. We might stay for 8 or 12 hours and apologize for leaving early to stumble home, sleep, and return in the morning. When I began work on January 18, I joined because it seemed interesting and important. I didn't understand what was going on, but I was told that I would already be training new people the next day. Like everyone else, I had little time to reflect on what it meant to be pulled into a crisis situation from thousands of miles away. It was hard to anticipate the highs, lows, and uncertainties that came with this work.

In the rush of activity, the earliest events that stand out are the powerful reminders of what the earthquake meant in Haiti. I remember the hush that came over the room the first day Google Earth updated its satellite images with post-quake photographs. We stared at our computers, zooming in and looking at the destruction. Someone noticed the first IDP camps—colorful patches of tents on soccer fields and squares, amidst the rubble. We stopped our work for a few minutes to examine them. Were the tents from the United Nations or from different agencies? Were they one color or many? We noticed a big camp by the airport, and then an even bigger one in the center of Port au Prince. As we dragged the screen further out from the center of the capital, the devastation seemed to continue endlessly.

The real core of our work began after a free text message number, 4636, was set up for people in Haiti to send messages to Ushahidi. The local cell phone providers in Haiti sent messages to subscribers throughout the country informing them that they should write to us with urgent needs and information on their location. The torrent of messages we received—at last count over twenty thousand—are a mosaic of needs and desires that read more like prayers than 911 calls. The messages are raw and terrible, depictions of death and suffering. In the early days, we became used to them; they created an enormous sense of urgency and responsibility. Those messages were the reality of our every waking hour. It felt good when we could take a message and find the location quickly; it was frustrating and stressful when people sent pleas without an address, or when we could not find the location on a map.

With time, however, the weight of these messages grew. First, it became apparent that many people were not receiving aid. As the days passed and starvation and thirst set in, we received more and more messages saying that people had seen no aid yet and were dying. With each day these messages became more troubling, and the added exhaustion and emotional burden of reading so many of them made the work more difficult. Second, we began to have personal connections with Haitians who were affected by the earthquake. One of my early tasks was to reach out to the Haitian diaspora in Boston to solicit help finding locations. As I made connections in the community and described our work, people began to send me personal messages

by email asking me to map their family members. It was hard to explain to people with so little to hope for that the most I could do was put the location on a map. I had no power to send relief (nor did I claim to), but people wrote to me daily in those days to reiterate that their family members were still not being assisted.

At the same time, we began to find new sources of support. While my relationships within the diaspora increased my personal connection to suffering, they also exposed me to resilience. My first glimpse of this came from a conversation with a young Haitian woman who had volunteered to help us translate. I explained Ushahidi over the phone and we chatted casually, enjoying a brief few minutes of pleasant conversation. She was a young professional in Boston who had grown up in the U.S. and was excited about the potential of the project. At the end of our conversation, I asked if she would like to come in to meet our team and see operations. Unfortunately, she said, she would not be able to because a close relative had died that day in Haiti and she had to attend to family matters. I was shocked and humbled. Her soft, matter of fact sentence brought tears to my eyes for a second, but then as I registered her words I realized how much this project represented to her an opportunity to do something positive in the face of a terrible situation. Her desire to help not only gave me strength to do my work, but was the first of many indications I had of the tremendous energy and dedication that Haitians have to solve their own problems.

For others in the team, support came from outside sources in the humanitarian community. No one in our organization realized how big this project would be, or how much attention it would receive. Phrases like “revolutionizing humanitarian work” were used, but this attention would have meant nothing in the early days were it not for our communication with responders on the ground. We had a team working nearly round-the-clock responding to the most urgent messages, such as people trapped and in need of life-saving medical care. First we processed and mapped them, then relayed that information to search and rescue teams from the U.S. Coast Guard and Marines. It was remarkable to know that messages sent from Haiti were being received and acted upon within minutes of our relaying them. Although the majority of responders who were using our information did not have time to share success stories with us, we did receive numerous messages confirming that Ushahidi was saving lives and telling us to continue our work.

Communities Everywhere

The earthquake in Haiti brought people together. We saw this in our community at The Fletcher School, in the online and tech communities that formed to help Haiti, in the Haitian diaspora, and within Haiti itself. Because we relied on networks, it is hard to recognize everyone who contributed to our effort—but we were certainly not alone.

A tremendous amount of work goes into running Ushahidi behind the scenes. Ushahidi relies on crowd-sourcing, which is the use of large groups of people to accomplish tasks, often through many small contributions that are made voluntarily.

Once messages are translated and received by UHP volunteers, the locations must be found on a map and entered into the Ushahidi Haiti website. This process is far from automated—in the beginning, it took fourteen steps and required the use of multiple maps and websites to get from a text message to an Ushahidi report with latitude and longitude coordinates. The platform itself is open-source and has been improved by volunteer programmers working at crisis camps—ad hoc gatherings of tech developers who contribute their time to helping relief organizations during humanitarian crises. A team of developers at The Fletcher School coordinate tech updates and work full-time supporting and improving the site. The text message translation from Creole to English was accomplished in the early weeks by a team of thousands of Haitians recruited through Facebook pages and coordinated through a chat room. The primary map that we used, Open Street Map, is an editable online map that has been painstakingly filled in since the Haiti earthquake with street names, search and rescue quadrants, landmarks, IDP camps, and hospitals. It is currently the most accurate map of Haiti available. On the ground in Haiti, we had two team members working with other NGOs (like Internews) that promote communication with disaster-affected areas and who helped advocate for relief organizations to use our data. Thus, while the Kenyan NGO Ushahidi is an established, professional organization, most of the work that went into the UHP was made possible by the work of thousands of volunteers connected remotely throughout the world.

Haitian communities in Haiti and the diaspora are becoming increasingly important within our project. As needs have moved from emergency response to longer-term relief, our information has become more important in aggregate than as individual reports. Sabina Carlson, a senior at Tufts University who speaks Creole and has experience working in Haiti, went to the ground two months after the earthquake to meet with local community organizations and generate new sources of data that reflect community needs. We knew that there would be strong local organizations responsive to Ushahidi because Haiti has a tradition of active civil society that has developed as a consequence of perpetual poverty and bad government. But the level of organization and receptiveness to using Ushahidi as a tool for expressing need was quite incredible. Local groups have lost faith that international NGOs will help them—they wanted to tell us about their own work, as well as their needs, so that NGOs will consult them as they provide assistance in Haiti.

In March 2010 I went to a town hall meeting of the Boston Haitian community, which is one of the largest in the United States. Over a hundred Haitian and Haitian-American leaders attended, mostly as representatives of NGOs, to talk about rebuilding Haiti. Individually they were well-spoken, organized, and deeply committed to Haiti. However, the recommendations they were making were not for immediate reconstruction of Haiti—many sounded idealistic and different from what I had heard about the situation on the ground. I left suspecting they had given up on the international community and were continuing with the same development projects they had been working on since before the earthquake. While I don't blame them, I

feel this is a terrible waste of an opportunity—particularly given that so much money is flowing into the country and the organizations within the Haitian diaspora will remain in the country after disaster responders have left. Ushahidi can be a tool for these organizations to identify needs, strengthen local capacity in Haiti, and provide evidence of priorities for advocacy and fundraising. Because Ushahidi has created a network of relationships with organizations in the diaspora and humanitarian community, we ultimately see an opportunity to bring the two together.

Growing Pains and Next Steps

When the search and rescue phase of the disaster ended, we had to make a strategic decision about whether to continue our work. We considered the fact that no one had ever used Ushahidi for post-disaster reconstruction, and we debated our comparative advantage. We saw enormous need for us to continue, especially since we were still receiving so many messages from places like Cite Soleil that had received no aid whatsoever. However, we also realized that going forward would be a lot of work, and that we would need a strategy to make our efforts more sustainable. We ultimately decided to keep working and to create a plan to hand our platform off to the Haitian diaspora once we had finished making improvements to our system. This will allow us to fulfill our promise to amplify Haitian voices, while putting the tools in the hands of people most committed to long-term development. It should also help address the communication gap between Haitian organizations and international NGOs, which both sides have told us is a serious problem.

Since making the decision to continue our work, we have been down a long, slow path of institutional development, planning, and collaboration with partners. Of all the work we have done, this has proven the most difficult. We are fortunate to have a talented and energetic team in a supportive environment, but hashing out the details of our program, objectives, and activities in the absence of an existing organization has been a daunting task.

Nonetheless, the experience of our colleagues on the ground has only reinforced to us the necessity of continuing the project. A vignette from the field made this starkly clear to me. Slums like Cite Soleil have been a “red zone” since before the earthquake—places where gang violence is so severe the government does not provide minimal services or police protection. Since the earthquake, they have been further neglected by both the government and the relief effort. Sabina traveled through Cite Soleil conducting a community assessment and explaining Ushahidi to people there. The community had still received no aid whatsoever two months after the earthquake, and Sabina showed them how to map data on a GPS device and input it into a spreadsheet. After her visit, she happened to see a UN cluster report that said that 100% of people there had received tents. In order to clarify the issue and improve communication between the community and the UN, Sabina decided to take a local Cite Soleil NGO leader to the UN Log Base to present the spreadsheet with needs and GPS locations. She was eventually able to present the data to the appropriate agencies, who gratefully

acknowledged that they had had no one on the ground in those communities. The aggregated data in spreadsheet format was the kind of useful, actionable information that the humanitarian community needed, and it bridged the gap between the frustration that people on the ground wanted to express and the information that the UN wanted to receive.

Although Sabina was successful, the process of getting someone to the appropriate cluster to talk about the situation in their community proved difficult. The Log Base—which is guarded by tanks—only permits access to people who belong to accredited NGOs. However, to become accredited, one must go to a desk that is located within the Log Base. As a result, it is only possible to gain access by belonging to an existing organization, a policy that effectively shuts out all the representatives of local NGOs and IDP camps. Furthermore, the UN Cluster System is difficult to understand. As Sabina put it after working on the UHP and spending two weeks inside the Log Base tent, “I barely understand the cluster system. No one has bothered to explain the humanitarian system to the Haitians and this is their government, effectively. They’re doing everything a state would be doing—providing services, security and managing the country.”

It is popular to speak of aid accountability, but this story illustrates an even more fundamental issue: when the international community controls all the means of providing food, water, housing, and medicine to a population, there must also be communication with the local population. People who are in need and are working to rebuild their lives deserve to be informed of minimum standards of aid, listened to when they are expressing their needs, and empowered to solve their own problems in cooperation with the international community. Ushahidi does not provide solutions to all these problems, but it does serve as a model for how technology can be used in the future to fill this gap. The crisis mapping team at The Fletcher School looks forward to evaluating the implementation of Ushahidi in Haiti and learning how to improve its response to the next crisis.

Read more about the Ushahidi Haiti Project at <http://www.haiti.ushahidi.com>.