Appendix F

Vision for the Future White Paper: "Humanitarian Response in the Age of Mass COllaboration and Networked Intelligence"

By Gisli Olafsson, NetHope, Inc.

Published in Burns, R. and Shanley, L.A. 2013. Connecting Grassroots to Government for Disaster Management: Workshop Summary. Washington, DC: Commons Lab of the Woodrow Wilson International Center for Scholars

September 6, 2012

Abstract

The current humanitarian response system is based on institutions created during the Industrial Age. It was built when connectivity was a very scarce resource and information sharing was something that only happened during meetings. The increased resiliency of mobile communication networks and the proliferation of satellite-based network connectivity have lead to information being much easier to share. At the same time, the rise of social networks and the explosive growth of mobile ownership amongst the affected communities have led to a new way of communicating. Furthermore the large institutional humanitarian response organizations are no longer the only responders, with multiple smaller organizations also responding. This paper looks at the opportunities new technologies have provided in rethinking the humanitarian response system and how new approaches may address some of the key issues faced in large-scale disasters in recent years.

Keywords

Humanitarian Response, Mass Collaboration, Networked Intelligence.

Introduction

We are at a turning point in our history. With many of the institutions we have relied upon failing to meet their obligations, the effects of population growth, climate change, urbanization, globalization, and economic instability means that those organizations cannot continue to do business like they have done for the last 50 years. At the same time, we are seeing a convergence of a technological revolution (often referred to as the Internet Revolution), a social revolution (the growth of social networks), and the rise of the Digital generation (people who have grown up on the Internet). These times are therefore both creating new threats and opportunities and it is crucial that we don't ignore these factors and keep trying to do things the same way we have always done them.

In the field of humanitarian response we have seen the same signs. The way things were done 5-10 years ago no longer work effectively, in part because of the higher numbers of and the greater diversity of response organizations. At the same time the capabilities of the affected population to directly communicate with the outside world have greatly improved. With the massive growth of mobile phone ownership, the ability to reach out to people and not only provide them information to make better decisions, but also to get in return their input creates new opportunities for addressing humanitarian response in a new way, has improved.

In 2010 the United Nations Foundation (UNF) and United Nations Office for Coordination of Humanitarian Affairs (UN OCHA) asked the Harvard Humanitarian Initiative (HHI) to bring together some of the brightest minds in the humanitarian world and write a report called Disaster Relief 2.0 (Harvard Humanitarian Initiative, 2011). This was groundbreaking in many ways because it pointed towards new ways that the traditional humanitarian community could work with the new digital generation of humanitarian volunteers.

A lot has happened since the report was written. We have seen the award-winning ways (International Association of Emergency Managers, 2011) the volunteer community helped the humanitarian community get a comprehensive overview of the situation in Libya as the civil war broke out. We saw a massive triple-strike disaster hit a very high tech country and citizens utilize technology to share information with each other (Miettinen, 2011). Finally have seen a massive regional long-term disaster unfold in the Horn of Africa and people wondering what can be done to provide assistance and why it was not responded to earlier.

Rethinking the humanitarian response system

Back in 2005, following the South East Asia Tsunami, some of the leading organizations in the humanitarian community came together and initiated what became widely known as The Humanitarian Reform (Adinolfi, Bassiouni, Lauritzen, & Williams, 2005). This reform came about because the old model of doing things was no longer applicable, especially in large-scale disasters, and there was a need to rethink how we

handled some of the core issues faced when trying to coordinate the multiple organizations involved in dealing with large-scale humanitarian disasters.

In the humanitarian space, just like in most other areas, the changes we have experienced in the last decade are bigger than in the 50 years proceeding that period. It is therefore important for us to start the discussions now on how we need to reform or possibly reboot the humanitarian system for the coming decades. Under the leadership of UN OCHA, the Inter-Agency Standing Committee (IASC) has started a process they call the Transformative Agenda to address some of the issues that have been found in the humanitarian reform by refining it, mainly through clarification of roles and responsibilities.

But the danger is that the Transformative Agenda is trying to repair a system that is built on the principles of the industrial age, while what is really needed is apply the seven principles of the age of networked intelligence as defined Tapscott and Williams (2006). These principles are innovation, collaboration, openness, interdependence, integrity, self-organization and sustainability. At the same time it is important that we also don't lose sight of the traditional humanitarian principles.

In this paper we will go through each one of the Information Age principles and discuss what effect applying them to humanitarian response will have.

Innovation

We need new, innovative ways to approach to deliver the services needed in the aftermath of a disaster or crisis. Instead of distributing food vouchers to affected populations, we could top up their mobile banking accounts with funds to buy food. Instead of flying in food from abroad, we could utilize technology to help local producers close to the affected area transport and sell their food in areas where food is needed. We could create trading platforms for non-governmental organizations (NGOs) and UN agencies to buy commodities directly from local producers. We could leverage the transportation networks and sales channels of companies like Coca-Cola to get the commodities transported faster.

We need to target the aid we give in more innovative ways. We need to leverage mobile phone technology to determine with greater precision directly from the affected communities the actual needs—not just guess based on not-so-accurate needs assessment surveys. We know communication is aid and we must figure out innovative ways to increase and harness the information flow and establish the channels of communication (Infoasaid, 2011).

We must look towards open innovation models that allow us to leverage the expertise of people outside of the traditional humanitarian response community to address these complex issues we face. Through collaborative and open innovation, we can find solutions that utilize outside of the box thinking to come up with solutions we inside the humanitarian community would never have thought of.

Collaboration

The word collaboration comes from the Latin word "collaborates," which means to work together. Webster defines it as "*to work jointly with an agency or instrumentality with which one is not immediately connected*" (Merriam-Webster, 2011). In the humanitarian world we have more focused on coordination than collaboration in the past. Webster defines the verb coordinate as the act "*to bring into common action, movement, or condition.*" This has often caused issues dealing with other organizations such as the military and the government civil protection because in those organizations things are done through a "command and control" culture.

Interestingly most humanitarian organizations internally have a rather strong culture of "command and control" through their bureaucracies of management levels. But when they interact with other organizations in the field they refuse to adhere to any kind of command and control structure, but have agreed to coordinate with each other albeit some more reluctantly than others. The big issue however is that the mechanisms for coordination are breaking down as more and more organizations get involved and as the scale of the emergencies faced grows each year.

The great research of Professor Emeritus Dennis Mileti of University of Colorado at Boulder showed us that one of the biggest obstacles to collaboration during disasters are organizations (Mileti, 1999). When disasters strike, organizations tend to fight for attention from the media and the public, fight political turf battles, and try to utilize a disaster to proof their importance and existence. A great example of this can be found in any country in the world where you can ask a police department if they like their fire department or vice versa. The same also holds true in the international arena where the large UN agencies and the big NGOs fight endless turf battles while people are suffering. But luckily, as Dennis pointed out in his research, people come to the rescue (Kim, 2004). It is through individuals in these organizations that collaboration happens, often against the political will of the organization.

In this age of networked intelligence and mass collaboration, we must find innovative ways to leverage social networks (both technical and non-technical) to improve this collaboration that is already happening at the individual level. Leadership within the humanitarian organizations must allow for these individual acts of collaboration to happen and in fact they should be encouraging them. It would also be very interesting to see what happened if the donor community would encourage collaboration in all projects they support.

In one of his early TED lectures, Clay Shirky (2005) points out that the old way of coordinating is by creating institutions. But since communication costs are going down drastically, there is another option, putting the coordination into the infrastructure by designing systems that coordinate the output of the group as a byproduct of operating the system without regards to institutional models.

Let's take a concrete example from the humanitarian world of how this might work. Humanitarian response is all about matching needs of the affected communities with the response capabilities of the humanitarian organizations responding. The institutional way of performing this match is to define a lead organization (cluster lead) that is responsible for bringing together all the interested parties (cluster members) to a meeting (cluster meeting). This happens as often as is required to get each one of them to report on what they have found the needs to be and then report how they are responding to meet that need. If the cluster lead is doing a good job, they get a good matrix of needs and responses and can then help identify duplication of efforts and gaps in the response.

This model stems from the time communication between the different organizations was difficult/expensive and communication with the affected communities was something you only did during needs assessment missions. But in a world of networked intelligence, where the affected communities have a capability to communicate their needs directly and where the response organizations can easily/cheaply communicate with each other, the model can be self-coordinating.

Through increased information sharing and better communication it is possible to take collaboration within humanitarian response to the next level and overcome many of the issues faced with current models of coordination.

Openness

Today an enormous amount of effort is spent on accountability of humanitarian work. This stems from decades of waste and corruption that unfortunately was quite commonplace. But the methods for averting corruption that were to put in place led to a very rigged accountability processes. At the same time, very few of the humanitarian organizations are transparent about how they spend the money they raise. Of course, most of them publish reports, but detailed information about expenditures may be difficult to find.

In the age of networked intelligence, transparency is a new form of power. Rather than being something to be feared, transparency is becoming central to successful organizations. Open organizations perform better (Tapscott & Williams, 2006), so smart NGOs are choosing to be more transparent. One could say they "undress for success."

It is not difficult to imagine what would happen if all humanitarian organizations were open and transparent about their work and those who provide them with money (both the public and governments) could see in detail how those funds are being used. Instead of massive overhead from accountability processes, it would be possible to introduce full openness. This openness will also lead to people finding new and more efficient ways to address the issues faced. If someone notices that a large portion of funding goes towards a particular task in the relief operation, then that immediately becomes an opportunity to find new and more efficient methods.

Interdependence

When the cluster system was introduced seven years ago, it helped improving the coordination of humanitarian response because it brought into the cluster all the organizations working on a particular subject area, such as health, education, etc. However, one of the drawbacks we have seen is that the work of each of the clusters has become more compartmentalized than before. Inter-cluster communication and information sharing is not functioning properly in most emergencies. Humanitarian response, however, is very interdependent. If you don't ensure good sanitation and hygiene, then you will see health deteriorate. If you don't provide enough food and water to people, then you will see malnutrition increase. In many cases, you have humanitarian organizations that fully understand this interdependency and therefore work within multiple clusters within the same area.

So what can be done to address this? One approach might be to split work based on geographical areas, rather than clusters. An organization then becomes responsible for providing all services to the community in a particular area. If they don't have the specialty to provide a particular service, then they collaborate with another organization that specializes in that field. This way the organization that is responsible for the area can ensure that all the interdependent factors are being addressed and that there are no gaps in the response effort.

Integrity

Integrity is all about doing the right thing, even when nobody is watching. It is possible to leverage the age of networked intelligence to ensure that integrity is an overarching principle that everyone follows. There are multiple examples already of how humanitarian organizations are utilizing technology to monitor their own performance and integrity (Save the Children, 2010). With cell phones now doubling as cameras and video recorders, you never know when someone might actually catch an organization compromising its integrity. This constant monitoring by beneficiaries and citizen reporters should lead to increased integrity in humanitarian response, even if we loosen the strict models we follow today.

Self-Organization

Following a sudden disaster, there is great chaos as the people affected by the disaster try to find ways to survive and the large swarm of relief organizations descends upon the affected area. In our attempt to deal with this chaotic system, we try to enforce structure through "humanitarian response systems" that enforce hierarchies upon environments that are not hierarchical in nature. The key reasoning behind hierarchical responses is that information about the overall situation is only available from the top down.

In their seminal paper (Alberts & Hayes, 2003), Alberts and Hayes discuss how the very structured and hierarchical command and control model of the military needs to evolve because better access to information, even on the battlefield, allows for more rapid and context sensitive decisions to be made at the field level. One of the key points they make is that while strategic direction should come from the top down, the tactical decisions need to be made "*at the edge*" by those on the battlefield.

We can learn a lot from their paper and apply it to humanitarian world. If it is possible to provide field workers with the same level of access to information as people in HQ have and if they are provided with the right strategic decisions, then it is possible to empower them to not only make decisions locally but also to organize locally how they interact with others.

If it is possible to provide everyone with information about what everyone else in the area is doing and allow for them to link up with others working on similar activities, then self-organization would start occurring naturally. The key to this, however, is the ability for organizations to easily report on their activities and areas of interest. If they had a simple way of doing this, then it is very likely all of them would feel very inclined to do so because it is in their own self-interest to avoid duplication and identify gaps in the response.

At the same time it might be possible for the affected communities to quickly see what is happening in their area, who is working there, and where there are gaps. That would either allow them to lobby for more focus on unmet needs or to self-organize to help address that need in their own community. Today's humanitarian response system is too closed and doesn't allow for inclusiveness of new humanitarian organizations, let alone the affected communities themselves. It is essential this changes.

Sustainability

In recent decades we have seen increased focus on disaster risk reduction activities, but most of these are still in their infant stages and only at the governmental level. In recent years, we have also seen increased use of the term resiliency when talking about how to better prepare communities for potential risks.

The long-term focus on risk reduction and resiliency will certainly help us minimize the threats nature throws our way, especially when dealing with the sudden onset disasters such as earthquakes, tsunamis, and floods. But when dealing with long-term disasters such as drought, we must look for sustainable ways to prevent them from leading to even more complex emergencies such as famines.

But we must also think about sustainability when it comes to providing the humanitarian relief itself. Instead of endlessly transporting large amounts of relief items halfway across the world, we must identify ways of utilizing more local and regional resources for help. This, in turn, can help the local economy and economies in the region grow through production and provision of those relief items. In the famine in Ethiopia in the

late 1980s, there was enough food available within the country itself – it simply was not available in the areas where the drought and famine was worst. Yet instead of transporting food from other parts of the country, relief organizations transported relief items from other continents and markets for local food in the non-affected areas tumbled.

The only way to create sustainable disaster risk resiliency is to ensure it is community driven. We must give the affected communities better tools to prepare for, respond to, and rebuild from disasters. We must build local capacity and expertise in dealing with the hazards people live with. In the end, we must work ourselves out of a job by making disaster prone countries more resilient and better prepared to respond themselves to disasters they face.

Conclusion

The main purpose of this paper is to get the reader to think about how the humanitarian system might be adapted to more modern ways of addressing the complex problems that everyone faces in the humanitarian world. Some of the ideas presented in this paper may seem a bit too radical for now, but as the digital generation takes over from the pre-digital generation in the humanitarian world many of the ideas could be implemented. It is important to remember that the organizations doing humanitarian work today are not going to change by themselves - it is through the people inside and outside of those organizations that this change must happen and hopefully that in turn over time leads to at least some of the organizations to start thinking in new terms.

Acknowledgements

Special thanks go out to the various people within the humanitarian and research community who over the last few years have over good food entertained a discussion about the future of the humanitarian system on which most of the ideas in this paper are based. Special thanks go out to John Crowley, Nigel Snoad, Patrick Meier, Oliver Lacy Hall, Jemilah Mahmood, Jen Ziemke, Eric Rasmussen, Robert Kirkpatrick, Jennifer Chan, Paul Currion, Bartel Van de Valle, Jesper Lund, Andrej Verity and Ky Luu, who have discussed these topics at great lengths with me over the years. Finally big thanks to Lea Shanley at the Woodrow Wilson International Center for Scholars that allowed me to present an extended version of this concept at one of their events.

References

1. Adinolfi, C., Bassiouni, D. S., Lauritzen, H. F., & Williams, H. R. (2005). *Humanitarian Response Review.* United Nations Office for Coordination of Humanitarian Affairs. New York and Geneva: UN OCHA.

2. Alberts, D. S., & Hayes, R. E. (2003). *Power to the Edge: Command and Control in the Information Age.* Washington, DC: CCRP.

3. Harvard Humanitarian Initiative. (2011). *Disaster Relief 2.0: The Future of Information Sharing in Humanitarian Emergencies.* Washington, D.C. and Berkshire, UK: UN Foundation & Vodafone Foundation Technology Partnership.

4. Infoasaid. (2011, July 20). *Communication is Aid.* Retrieved December 9, 2011, from Youtube: http://www.youtube.com/watch?v=Q6bB0y8DdYY

5. International Association of Emergency Managers. (2011, August 2). *IAEM Announces Winners of 2011 Global Awards Competition.* Retrieved December 9, 2011, from International Association of Emergency Managers: http://www.iaem.com/PressRoom/documents/IAEM-GlobalAwardsNewsRelease080211.pdf

6. Kim, S. (2004, March 28). *People are a resource.* Retrieved December 9, 2011, from Disater News: http://www.disasternews.net/news/article.php?articleid=1718&printthis=1

7. Merriam-Webster. (2011, December 9). *Dictionary.* Retrieved December 9, 2011, from Collaborate - Dictionary: http://www.merriam-webster.com/dictionary/collaboration

8. Miettinen, V. (2011, March 28). *After the quake: crowdsourcing Japan.* Retrieved December 9, 2011, from Microtask: http://blog.microtask.com/2011/03/after-the-quake-crowdsourcing-japan/

9. Mileti, D. (1999). *Disasters by Design.* Washington, DC: John Henry Press.

10. Save the Children. (2010, October 28). *Save the Children's SMS Texting Program Helps Pakistani Flood Survivors to Help Themselves.* Retrieved December 9, 2011, from Save the Children: http://www.savethechildren.org/site/apps/nlnet/content2.aspx?c=8rKLIXMGIpI4E&b=6248025&ct=8843229

11. Shirky, C. (2005, July 1). *Clay Shirky on institutions vs. collaboration.* Retrieved December 9, 2011, from TED: http://www.ted.com/talks/clay_shirky_on_institutions_versus_collaboration.html

12. Tapscott, D., & Williams, A. D. (2006). *Wikinomics: How Mass Collaboration Changes Everything.* New York, NY: Portfolio.