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Call for Open Humanitarian Information

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Abstract. In this paper we describe the need for open data sharing amongst the humanitarian community.

Introduction

To effectively respond to major disasters, the response needs to be coordinated between the large numbers of response organizations. The key to effective coordination is access to the right information. Without a common operational picture the coordination becomes at best ad-hoc.

Attempts by the humanitarian community to coordinate the chaotic environment that follows sudden-onset disasters such as earthquakes or tsunamis have in many cases failed to be successful. Both real-time and post-disaster evaluations of large scale disasters in the last few years all point towards lack of information sharing between organizations as one of the key reasons for the lack of ability to effectively coordinate the response.

A few years ago when a response organization was asked to share information openly with another organization they often pointed towards lack of connectivity as a reason for not being able to share information easily. This lead to information simply being shared at the document level – through situation reports or maps where only the resulting data was shared – often in paper format with other agencies.

Advances in connectivity options as well as increased resiliency of mobile networks has lead to the "connectivity excuse" to no longer be relevant, yet we are not seeing organizations sharing beyond the document level. A shift in policy is required to push response organizations to share information more openly with other response organizations.

This paper discusses the need for an initiative that focuses on bringing the concepts of open data to the humanitarian information community. It will discuss the reasoning behind the need for such an initiative and also what the benefits of such an initiative would be.

It is important to state from the beginning that when discussing opening up and sharing data, this does not include sensitive and privacy related data, only operational data that can be utilized to achieve a common operational picture.

Open Data

One of the bi-products of the Freedom of Information Act in the USA was to provide free public access to federal data. Most of the states and local governments also implemented similar policies and that in turn lead to their data to become available for free to the public. Similar efforts in other countries also lead to the same policy change.

It was however only in the last few years, with the growth of data centers in the cloud that this public and free data became easily available. As the cost of making these large public data sets available became lower, more and more datasets became available online. At the same time the call for more transparency within governments lead to President Obama to launch an Open Government Initiative in January 2009 [1]. This initiative was then supported with the launch of the website **data.gov** that contains today over 390,000 datasets [2].

This push for transparency and openness was not limited to United States only and on September 20, 2011 the Open Government Partnership was formally launched, with 8 founding governments (Brazil, Indonesia, Mexico, Norway, Philippines, South Africa, United Kingdom, United States) endorsing an Open Government Declaration, and announcing their country action plans. This was complemented by the commitment of 38 other governments to join the Partnership [3].

At the same time there has been a push, both from donor governments and non-profit organizations to push for increased transparency and openness in development and humanitarian aid [4,5,6,7,8,9]. Most of these initiatives have

however focused on the financial aspects rather than the operational aspects of the humanitarian response.

Open Humanitarian Initiative

To meet the need for increased information sharing between humanitarian response organizations, there is a need for a broad ranging initiative that includes all the different participants in the humanitarian response system.

NetHope, a consortium of 34 of the leading international non-governmental organizations (NGOs) in the world has worked on bringing together those different participants around what is being called the Open Humanitarian Initiative (OHI). This initiative has the following main objectives:

- Improve information sharing amongst humanitarian organizations.
- Improve information management capacity both within humanitarian organizations as well as within governments in disaster prone countries.

In order to improve information sharing it is essential to:

- Increase the willingness to share information by showing humanitarian organizations the value they receive when information is shared.
- Drive a policy shift within the humanitarian community towards open data.
- Drive for standardization of how humanitarian data is represented during data exchange.
- Provide a common platform for sharing humanitarian data.
- Ensure the capacity to share, manage, analyze and disseminate humanitarian data is sufficient, both at the national and international level.

It is important that this new initiative focuses on all of these efforts since if one or more of these things are not addressed then the other efforts will not achieve the desired result.

It is also important that this initiative does not start from scratch, but rather builds upon other efforts already underway such as the various Open Aid initiatives mentioned earlier [4,5,6,7,8,9], the Common and Fundamental Operational Datasets Registry from OCHA [10], Open Data for Resilience Initiative (OpenDRI) from World Bank's Global Facility for Disaster Risk Reduction and Recovery [11] and the Humanitarian Exchange Language [Hendrix, personal communication].

Bringing everyone together

The most complex part of making an initiative like this successful is bringing everyone together and gets them to support a common vision. It is important that the initiative brings together all the different participants in the humanitarian system, such as the donor community, the response organizations, the research community, the private sector community as well as the digital volunteer and technology community.

Through a common theme like Open Data within the humanitarian community it is possible to break down the silos of information and start sharing non-privacy related humanitarian data. The response organizations most focus on collaboration instead of competition when it comes to information.

Once this data becomes openly available it is then possible to leverage the powers of mass-collaboration (a.k.a. crowdsourcing) and leverage the networked intelligence of digital volunteers that are passionate to help out in times of crisis.

Willingness to share

Humanitarian donors need to start pushing a policy of openness towards those organizations that they fund. At the same time humanitarian organizations need to have a change in mindset when it comes to the willingness to share. This change in mindset is best achieved by being able to show them the value of sharing that data. In order to show that additional value we need to have the ability to quickly leverage that open data to perform analysis and then disseminate it together with other shared data to provide actionable information that helps the response organizations do their work more effectively.

We must also help governmental disaster management agencies to lead efforts in their respective countries in opening up the data they work with. This work needs to leverage funding options and capacity building efforts that are already part of the Open Government Partnership.

Common Platform

It is time that the humanitarian community stops sharing documents, such as situation reports and PDF maps and start sharing data at the granular level, so that it can be transformed, analyzed and visualized in different manners. It is time for a cloud based, occasionally connected, common, freely available humanitarian data platform that has open APIs and shared data exchange standards.

It is also essential that the private sector takes a leading role in providing a platform like this to the humanitarian community, because most of the technology components required for such a platform already exist.

Information Management Capacity Building

Recent large-scale disasters, such as the Haiti earthquake and the Pakistan floods have shown that there is a lack of overall information management capacity worldwide to deal with the explosion of humanitarian data. It is important that we look both at short and long-term solutions for increasing this capacity. It is especially important that we focus on increasing this capacity in disaster prone countries

In the short-term it is important to provide one- semester university level courses in practical humanitarian information management to be delivered in disaster prone developing countries. These courses can have as a by-product a practical element that allows for collection and maintenance of core and fundamental operational datasets for the countries the course is run in.

Additionally there is a need for the creation of a training program for humanitarian organizations and national disaster management agencies in information management.

In the long-term there is a need to create globally recognized degree programs in humanitarian information management. Openly and freely available undergraduate and post-graduate curriculum should be created to support these degrees being offered, especially in disaster prone countries.

This capacity building effort needs to be created in collaboration with leading universities and humanitarian organizations and the target focus should be towards improving this capacity in disaster prone developing countries.

Conclusion

In order to successfully make a giant leap forward in how information is being shared within the humanitarian community, it is essential that all the parties involved stand behind an initiative like this.

Through a joint collaborative effort, it is possible for us to bring the humanitarian system into the information age and improve our response and thereby save lives and alleviate suffering.

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