Guidance for Collaborating with

VOLUNTEER & TECHNICAL COMMUNITIES

digital humanitarian network

This document provides formal humanitarian actors and decision makers with a framework for collaborating with Volunteer & Technical Communities (V&TCs). The guidance aims to ensure that actors better formulate requests, understand the dynamics of working with V&TCs and maximize the benefits of such collaboration.

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Guidance for Collaborating with

VOLUNTEER & TECHNICAL COMMUNITIES

Version 1

by

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ABOUT THIS DOCUMENT

This document is for formal humanitarian entities that are interested in collaborating with V&TCs. It will best fit the needs of organizations that have had exposure to V&TCs and their work, and now seek practical advice on proceeding with a deployment. The guidance aims to ensure that actors understand the dynamics of working with V&TCs, better formulate requests and maximize the benefits of such collaboration.

This document does not attempt to resolve ongoing discussions about verification, reliability, the added value of crowdsourcing, privacy and other issues, which are being addressed in other forums.

We extend our gratitude to the individuals within the humanitarian organizations and V&TCs who shared their insight, knowledge and experience on drafts of this document.

– The authors
August 2012

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PART ONE | UNDERSTANDING V&TCs

A. Introducing V&TCs

The Haiti earthquake of 2010 radically changed the way information is collected and analyzed in humanitarian emergencies. New technologies were used to collect and organize data from multiple sources moments after the disaster. Much of this work—including media tracking, geolocation, mapping, data cleaning, translation, and social-networks monitoring—was done by volunteers working from their homes and offices around the world. Throughout the relief operations, V&TCs collected, verified and analyzed more data than humanitarian teams in the field had the capacity to process.

V&TCs' inputs in Haiti provide some of the most vivid examples of how these groups can affect information management within the humanitarian sector. In general, V&TCs operated before the Haiti earthquake, but many grew significantly in membership, capabilities, and reputation during this time by delivering critical services in rapid and innovative ways.[1] In the last few years, V&TCs have gathered a significant amount of experience, and now engage in a wide range of activities, from accelerating data processing to delivering unique information analysis not typically available in humanitarian organizations. Not only have they been deployed in response to sudden-onset disasters, but they have also contributed to pre-disaster data preparedness, election monitoring, political crisis mapping, and economic development programs (see **annex I** for further examples).

Despite this, it is difficult to find a single definition of V&TCs to fit every group's expertise, structure and raison d'être. They can be largely understood as volunteer-based communities who apply their technical skills to support humanitarian response. Some see V&TCs as "networks of experts"[2] who contribute highly specialized products and services, while

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

[2] Global Facility for Disaster Reduction and Recovery and the World Bank, *Volunteer Technology Communities: open development*, (Washington, D.C.: The World Bank, 2010).

others characterize V&TCs by the way they structure their communities around ideals from the so-called Semantic Web:[3] the belief in open data, open-source technologies and non-hierarchical structures.

The reality today is that networks of passionate volunteers have the capacity to work alongside established humanitarian organizations from virtually anywhere in the world. V&TCs are now part of the landscape of humanitarian response, and they offer enormous potential to improve humanitarian action, not least by incentivizing innovation and adopting new and emerging technologies. The challenge lies in enabling humanitarian organizations and V&TCs to better understand each other and to develop opportunities for collaboration that harness the full potential of the resulting partnership.[4]

B. Characteristics of V&TCs

Building productive and complementary relationships with V&TCs requires an understanding of who they are, what they can do, how they operate and how to best engage them. V&TCs can be very different from formal humanitarian organizations, and working with them may require adjusting standard operating procedures.

Today's open, hyperconnected digital age has a great influence on how V&TCs operate.[5] Many draw their ideology and working methods from the following elements:[6]

- **Open-Source Ideology:** The open-source idea has its roots in the development of computer software, where many different coders can work collaboratively on the source of a project. In a sense, V&TCs operate with an open-source ethos, firmly believing that

[3] Global Facility for Disaster Reduction and Recovery and the World Bank, *Volunteer technical communities: open development*, 2010.
[4] OCHA Policy Development and Studies Branch, "Coordination to Save Lives: History and Emerging Challenges", (United Nations, 2012). Available at: http://reliefweb.int/report/world/coordination-save-lives-history-and-emerging-challenges.
[5] Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations*, (New York: Penguin Press, 2008).
[6] Evelyn Hichens, "The Motivations behind the Standby Task Force", (Unpublished MSci dissertation, School of Geography, Earth & Environmental Sciences, University of Birmingham, United Kingdom, 2012).

information and data should be available and accessible to the public. However, operating within open-source standards does not imply that V&TCs do not work with restricted information. V&TCs handle data in different ways, but each one has specific codes of conduct for protecting information. Nevertheless, a conversation is ongoing between representatives of humanitarian agencies and the V&TC community to agree on appropriate protection standards.[7]

- **Flexible Structure and Hierarchy:** Recent technological developments allow volunteers to participate in a humanitarian response from virtually anywhere in the world. To facilitate continuous, participatory work flows, V&TCs often have flexible and flat organizational structures. Some use what is known as the commons-based peer production model to work with large groups of volunteers, producing a series of information products and services without central guidance and coordination.[8]

- **Collaborative Workflow:** V&TCs typically use real-time collaborative working systems and tools. It is normal for volunteers to use Google Documents, collaborative wikis and online microtasking platforms[9] and maintain constant contact through Skype, Internet Relay Chat (IRC), or other instant messaging systems.

- **Altruistic Nature:** Volunteers participate in humanitarian deployments (V&TCs more broadly) because they want to help distressed communities. Volunteers believe that their small, individual efforts can make a big difference as part of a wider digital community. They should not be perceived as free labor.

- **Desire to Cultivate and Disseminate Technical Skills:** Due to the

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[7] Louise Searle and Phoebe Wynn-Pope, "Meeting Record: Crisis Mapping, Humanitarian Principles and the application of Protection Standards -- A dialogue between Crisis Mappers and Operational Humanitarian Agencies", (17 November, 2011). Available at: http://irevolution.files.wordpress.com/2012/02/world-vision-geneva-report.pdf.

[8] Yochai Benkler, *The Penguin and the Leviathan: How Cooperation Triumphs over Self-Interest*, (New York: Random House, 2009).

[9] "Microtasking" refers to the crowdsourcing of small tasks that take little resources to be completed (from *Short Stories About Tiny Tasks* by Microtask, available here: http://cdn4.microtask.com/assets/download/book.pdf). The Humanitarian OpenStreetMap Team has been particularly successful in its approach to microtasking by developing an online collaborative mapping platform, the OSM Tasking Manager. For more information, please refer to http://tasks.hotosm.org/.

technical nature of V&TCs, volunteers are often looking to learn, improve or share skills that are related to humanitarian response. This is often considered an important source of motivation for volunteers.

- **Enthusiasm for Partnership:** Information-related products and services are the main outputs of V&TCs. In that sense, partnering with formal humanitarian organizations provides V&TCs with an opportunity to align their skills and expertise towards making a real-world impact on people in need. Collaborating with large organizations allows V&TCs to become more credible and professionalized. In turn, V&TCs can generate an environment of innovation and growth for humanitarian organizations, giving them the chance to experiment with new ways of collecting, analyzing and managing information.

V&TCs and Innovation

In the digital age, "humanitarian emergency" can be a synonym for "information overload". Affected people now have access to a much wider array of communication tools that feed into dense and rapid data streams, while responders struggle to collect, analyze and process this "information fire hose".[10]

Consequently, effective information management is becoming an increasingly challenging yet critical task. In this respect, while engaging V&TCs requires experimentation and risk (especially with limited staff and resources), such collaboration offers huge potential by pushing organizations to open themselves to exploring and even mainstreaming innovative ways to manage information (see **annex II**).[11] Humanitarian responders can draw on the engaged

[10] Harvard Humanitarian Initiative, *Disaster Relief 2.0*, (2011).
[11] Partially adapted from Chris Anderson's TED talk: "How web video powers global innovation," (July 2010). Watch it at: www.ted.com/talks/chris_anderson_how_web_video_powers_global_innovation.html.

participation of a crowd that can tame complexity by dividing and accomplishing tasks in the most efficient ways.[12] By leveraging the cognitive surplus of human skills and minds, the entire system benefits from fast-paced and dynamic adaptations.[13]

C. Limitations and Potential for Growth

V&TCs exist outside the formal, traditional international humanitarian system, and therefore lack access to many resources and well-established traditional information flows within organizations and networks. Most V&TCs do not specialize in humanitarian assistance in the traditional sense (i.e. direct provision of food, shelter, health care), but can extend virtual support through outreach to a wider set of actors, including diaspora communities and disaster-affected people by providing information products and services.

V&TC members come from diverse backgrounds and multiple areas of expertise. Some are humanitarian professionals with many years of experience, but others have little or no experience with humanitarian action or, equally importantly, its consequences. In this sense, volunteers need guidance and training in aligning with the processes of organizations that have more field experience. Most V&TCs are keen to innovate and they have a remarkable capability to adapt to new situations.

Volunteers' reliability and predictability have also emerged as issues. Some have highlighted that V&TCs' internal processes may not meet standards of information security, or that volunteers may not always be reliable in delivering expected results. This concern is valid and cannot be ignored. However, establishing a mutually beneficial collaboration framework that includes clear guidance, management and structure has the potential to mitigate those issues, building trust and confidence between all parties.

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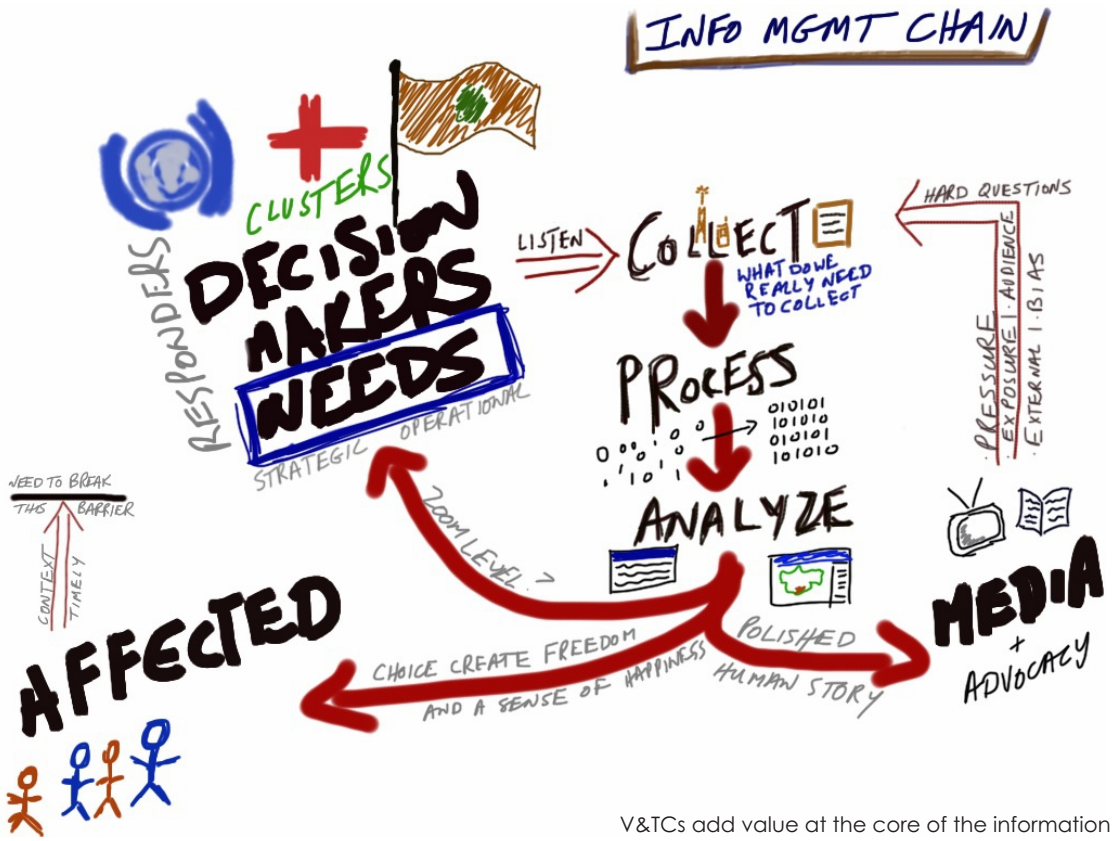
[12] Eric S. Raymond, *The Cathedral and the Bazaar* (2000). Accessible at: www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/ar01s04.html.
[13] Clay Shirky, *Cognitive Surplus: Creativity and Generosity in a Connected Age*, (New York: Penguin Press, 2010).

V&TCs will continue to have an increasingly prominent role in humanitarian response, but collaboration with formal humanitarian organizations will play a critical part in enhancing and building evidence of V&TCs' impact. In recognition of their importance, timely solutions, such as the Digital Humanitarian Network (DHNetwork)[14] are emerging to facilitate collaboration between humanitarian organizations and V&TCs. As V&TCs and humanitarian organizations gain more experience working together, new opportunities and limitations will surely emerge. Maximizing the benefit and effectiveness of V&TC engagements with traditional humanitarian entities is only possible if both sides remain ready and willing to work and learn together.



V&TCs add value at the core of the information management chain: the collection, processing, and analysis of data. Information Management Chain. Andrej Verity, 2010.

[14] DHNetwork is a network-of-networks, enabling a consortium of V&TCs to interface with humanitarian organizations that seek their services. Current members of the DHNetwork are DataKind, GISCorps, ESRI, MapAction, Humanitarian Open Street Map Team, Geeks Without Bounds, Standby Task Force, Statistics Without Borders and UN Online Volunteering Service.

PART TWO | GUIDANCE FOR EFFECTIVE COLLABORATION WITH V&TCs

This section contains guidance notes on working with V&TCs. It is intended to be particularly useful to humanitarian organizations that are considering collaboration with V&TCs for the first time.

As discussed in part one, V&TCs are diverse communities and do not share the same structure, raison d'être and objectives among each other. Accordingly, **section A** outlines a general framework that can apply across contexts, regardless of the particular V&TC, offering some important points to consider throughout a deployment.

Section B then describes four characteristics that will substantially shape the specifics of the deployment: **information complexity**, **volunteer crowd size**, **intensity of engagement** and **volunteer capacities**. Reflecting on each of these characteristics can generate enough information for an organization to initiate a thoughtful and informed discussion with V&TCs to properly plan and structure a deployment.

Volunteer Engagement[15]

Keep in mind the following important points through all stages of a deployment.

- ➜ Volunteers are motivated by many different factors: ideology, personal satisfaction, community, humanitarian values and a desire to apply and improve technical knowledge, to name just a few. Encourage volunteers by giving feedback, recognition, appreciation and gratitude. Outline their impact in clear and tangible ways.

[15] Chris Anderson, "How web video powers global innovation", (July 2010).

- ➜ Cultivate a sense of ownership and accountability within the V&TC team. Let team members know that they matter, and that they are making a difference in the humanitarian operation.
- ➜ Generate a feeling of inclusivity based on a system of collaboration, partnership and sharing with multiple stakeholders in the V&TC. Maintain an open and transparent relationship with volunteers, and give space for constructive discussions on improving work flows.
- ➜ When possible, provide training and capacity-building opportunities for volunteers. This empowers volunteers to learn from you and your organization, while enabling them to better understand your needs in the future. For the benefit of V&TCs in the longer term, think of tools or support that your organization can offer to volunteers and the larger V&TC community.

A. Deployment Stages

In most cases, V&TCs will be activated and deployed virtually. Each of the four stages of a V&TC collaboration (pre-deployment, activation, deployment, and post-deployment) places specific demands on the requesting organization. The following section outlines points to consider at each stage.[16]

Pre-Deployment

- ➜ Develop relationships with V&TCs before disaster, rather than waiting until overwhelming needs push the organization to seek external help. Network with V&TCs in your area of work and make

[16] Parts of this section are adapted from Anahi Ayala Iacucci, Standby Task Force, "Libya Crisis Map: Operational Protocols and Related Documentation", (2011), https://docs.google.com/document/d/1MxBUD8wrxPHwLvAvFn9hanCpn51OSIw4N_RMeUPgNXk/edit?hl=en_US.

contacts within each group. This establishes a foundation for a future working relationship and enables a better understanding of each V&TC's internal processes and expertise. Once these partnerships are established, activations and deployments can proceed more smoothly.

- Understand how V&TCs are organized and governed by studying their materials (i.e. website, code of conduct, protocols, work flows, membership and administration and documentation of previous deployments). For example, the DHNetwork website is designed to make such information easily available and understandable by centralizing it in one place, where organizations can quickly find details on key V&TCs and their services. The DHNetwork coordinators are also in place to assist organizations with finding the best "solution team" for the deployment.

- Ensure that your information needs match the V&TC's capacity to meet them. There will always be tasks that professional humanitarian actors can accomplish more efficiently given their access to the field and their response experience. Decision makers must not only identify what tasks can be efficiently delegated to V&TCs, but also clearly demonstrate why the deployment cannot be accomplished with current staff capacities and how V&TCs represent an added value. Organizations should be mindful that collaboration is not simply about leveraging volunteers for free: it is rather a mutual beneficial relationship that should benefit both sides.

Activation

- Designate focal points within your organization to liaise with V&TC focal points. These people should be available for the duration of the deployment.

  - Within the V&TC, there should be a volunteer coordinator who has oversight over team coordinators, providing them with guidance and troubleshooting.

  - Within the organization, there should be focal points that are

consistently available to answer questions and inquiries from the V&TC focal point.

- Clearly specify the tasks to be accomplished and set an estimated timeline for requested participation. Use simple and accessible language to draft instruction guidelines and workflows, and continue to illustrate the broader picture of why the deployment is important and how individual tasks will support the overall objective.

- Establish a clear workflow in collaboration with the V&TC and specifically define what training and support are required from the requesting organization.

- Liaise with the V&TC to reach consensus on the appropriate number and profile of volunteers to recruit for the project.

Deployment

- Perform regular quality-control checks, especially early in the deployment so that any mistakes can be corrected quickly.

- Record significant moments during the deployment, such as pictures of the team, Skype chat exchanges, and e-mails. These can serve as valuable reference material for future reports, conferences and workshops.

- Provide regular feedback to volunteers on their contributions to beneficial outcomes and the organization's objectives. Ensure that the organization acknowledges volunteers' contributions in a practical and tangible way, such as through clear examples and descriptions of impact from the field or decision makers.

Post-Deployment → next page

Post-Deployment

- Conduct a wrap-up of the operation with the V&TC and decide if lessons will be kept private or made public. When a deployment ends, V&TCs often use blog posts to highlight the successes and failures encountered over the operation. It is important for organizations to conduct a similar post-deployment evaluation.

- V&TCs generally do not expect any traditional remuneration. However, publicly recognizing volunteers' participation and their impact on final outcomes is necessary. This can be done in different ways, such as publicizing the names of volunteers who want to be identified, mentioning the V&TC in reports and other documentation about the disaster, or even generating media coverage of the deployment. Liaise with V&TC focal points to agree on the best way to acknowledge volunteer contributions.

These points are general guiding principles that should be applied regardless of the deployment context. As an organization becomes more familiar with a particular V&TC, these considerations can be refined.

B. Types of Deployments

The characteristics of each V&TC deployment will vary based on the requesting organization's needs and volunteers' availability and capacity. The following section outlines four points to consider when formulating an activation request:

Information complexity: A wide range of factors can make a deployment relatively straightforward, or extremely complex. Data availability, accessibility to resources, requests for analysis, language and subject-matter expertise, and the ability to partner with local networks are just some of the characteristics that place varying demands and pressures on volunteers. Depending on the country or environment, confidentiality and security are also critical factors.

Volunteer crowd size: Determining the appropriate size of the crowd will largely depend on the amount of data to be processed and the urgency of the task. The crowd size will also affect the degree of oversight and management possible by a requesting organization. For example, a smaller team could enable a tighter working relationship with the organization, resulting in more personalized capacity-building and feedback. A larger team provides greater capacity, but could be less personal since membership is likely to be somewhat dynamic.

Intensity of engagement: Different projects will require different intensities of management and oversight of volunteers. Depending on the context, a weekly check-in with the team focal point will be sufficient. In other contexts, it may be necessary to make a commitment to be consistently available to address issues. The requesting organization and the V&TC should communicate expectations early in the process, so that both sides can align themselves and prepare accordingly. Relatedly, the anticipated length of deployment should always be kept in mind to anticipate the demands on the individual volunteer and the stamina required to last through the deployment.

Volunteer capacities: It is essential to understand what capacities are necessary to succeed in a deployment. For example, geographic data requires volunteers with GIS expertise, document translation requires volunteers with language skills. Deployments involving politically sensitive data may require special security measures which can affect the number and profile of volunteers who can participate.

Section C contains examples that illustrate how the specific needs of your deployment will affect your team's composition.

C. Examples

This section contains hypothetical examples of three different contexts in which an organization may desire partnership with a V&TC. Each example outlines the decision-making process that feeds into an activation request. This demonstrates that considerations in the four categories of **information complexity**, **volunteer crowd size**, **intensity of engagement**, and **volunteer capacities** guide the nature of the deployment and the composition of the volunteer team.

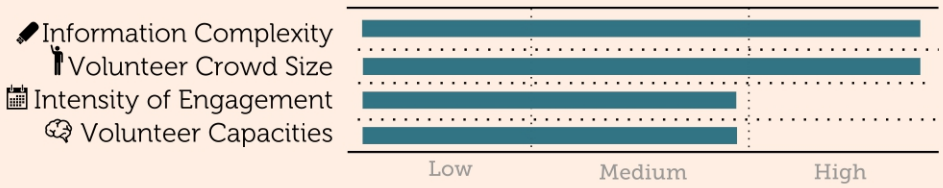
18 Locating Field Hospitals

In this example, the requesting organization is a Large International Health Organization (LIHO). An earthquake in a country with high indexes of volatility generates a sudden onset emergency. LIHO decides to activate the V&TCs to supply specific information about the location of field hospitals.

Pre-Deployment

1 Emergency → 2 After the earthquake most databases are lost, giving LIHO no baseline information about the location of field hospitals. → 3 There are many flows of information , but LIHO lacks the capacity to analyze and geolocate incoming information. LIHO decides to activate the V&TCs.

What kind of team do I need?*



* **Information Complexity:** There is very little data available and no guidance on where to locate additional information.
Volunteer Crowd Size: Analyzing the information generated by traditional media sources, social media and SMS is too great for LIHO's operational capabilities. LIHO decides that a large volunteer team will be necessary.
Intensity of Engagement: The acute medical needs of victims will require the volunteers to work very intensively for at least two weeks.
Volunteer Capacities: In this operation, LIHO is looking for data collectors, data specialists (to clean, analyze and categorize information) and GIS specialists to properly map the coordinates provided.

Activation

Request: "Geo-locate Field Hospitals"

A request is drafted and LIHO activates the V&TCs using the Digital Humanitarian Network.

Deployment

Quality Control
In this example, LIHO´s GIS specialists check the coordinates periodically to ensure the locations are logged correctly into the system.

Feedback
LIHO provides feedback about the accuracy of the locations (geo-tagged) and how other teams involved in the humanitarian response are using that information.

Volunteer Management
To avoid volunteer fatigue, LIHO and the V&TC focal point establish a volunteer turnaround every four days. Every week, LIHO sends a progress note to all the volunteers informing them about the progress being made.

Post-Deployment

Wrap-Up
One month after the earthquake, LIHO writes an evaluation report with the V&TC leaders identifying points that worked during the deployment, and areas that need improvement.

Recognition
To recognize the work of the volunteers and V&TC leaders, LIHO sends thank you notes through public announcements on Twitter and its Facebook page. Also, LIHO officers write articles and blog posts that are published online, thanking the V&TCs explicitly.

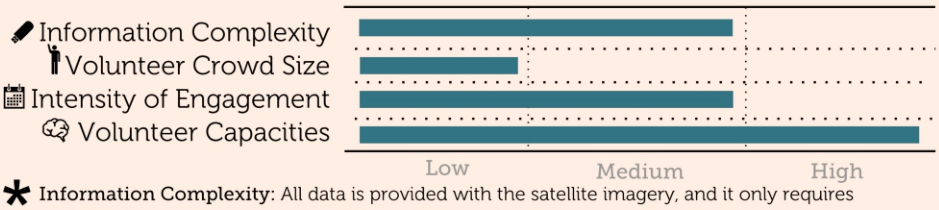
Tracking Refugees-IDP Movements

This example involves politically sensitive information. Large Food Organization (LFO) is working to supply the population of a region with essential food supplies. However, the region has been affected by conflict for a period of time and managing information has turned into a complex security issue. In this context, LFO decides to activate the V&TCs to track refugee/IDPs movement. Due to the sensitive nature of this information, LFO requires full control over all the data manipulated during the deployment.

Pre-Deployment

1 Emergency → 2 Satellite imagery is collected to identify the location and movement of refugees/IDPs. → 3 The processing of such imagery is time consuming and LFO doesn't have many in-house specialists. LFO decides to activate the V&TCs.

What kind of team do I need?*



* **Information Complexity:** All data is provided with the satellite imagery, and it only requires analysis. However, it requires special security procedures.
Volunteer Crowd Size: LFO requires direct oversight of volunteers' work and to train the volunteers before deployment. Thus, it expects to manage a small team of 5~10 volunteers.
Intensity of Engagement: The imagery is a component of weekly situation reports. This will require a stable and sustainable participation of volunteers throughout the period of two months.
Volunteer Capacities: LFO is looking for volunteers that have had experience with satellite imagery, preferably remote-sensing professionals.

Activation

Request: "Analyze Satellite Imagery"

A request is drafted and LFO activates the V&TCs using the Digital Humanitarian Network.

Deployment

Quality Control

In this example, LFO´s staff triangulates the satellite analysis with other sources of information. When the triangulation presents too many disparities, LFO marks the same area for a second round of analysis.

Feedback

LFO makes its quality control process totally transparent to the volunteers involved. The volunteers can then track the accuracy of their analysis and improvements that need to be made.

Volunteer Management

LFO understands that working with satellite imagery can be very demanding. In order to keep volunteers motivated, LFO organizes conference calls with volunteers and LFO staff in the field working directly with the distribution of aid. These calls give volunteers first-hand appreciation of the utility of their analysis for field teams.

Post-Deployment

Wrap-Up

Based on its experience, over the two-months deployment, LFO writes a study on the effectiveness of working with volunteers to analyse satellite imagery. That report is shared with the volunteers to gather feedback and make corrections before publication.

Recognition

As a sign of recognition, LFO publicly recognizes the V&TC and volunteers in the acknowledgements section of its study. Also, LFO staff train the volunteers in more advanced techniques of satellite imagery analysis.

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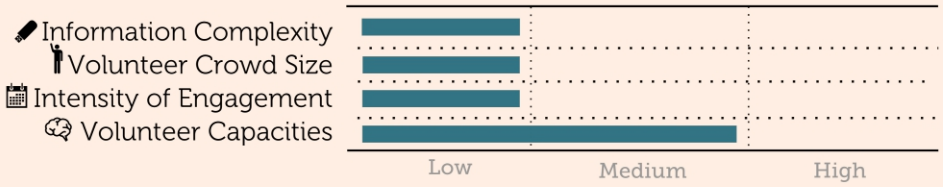
Updating Baseline Reports Prior to an Emergency

A humanitarian response organization lacks the capacity to update its disaster preparedness reports. This task is critical in the preparedness phase and constitutes the primary benefit of having an early warning system. These reports establish a foundation for analysis should a crisis actually occur.

Pre-Deployment

1 Preparedness → 2 The relevant countries are identified, specific data needs are outlined, and the format of the reports is well-established. → 3 The organization seeks to accelerate the production of their reports and decides to activate the V&TCs.

What kind of team do I need?*



* **Information Complexity:** Data is open-source and reliable. Sources are clearly identified.
Volunteer Crowd Size: Without the demand for rapid information processing, a smaller team is sufficient to complete the task. If the deliverables are desired sooner, the team can be expanded as needed.
Intensity of Engagement: After an initial orientation, volunteers are capable of data collection, analysis, and the generation of reports. Focal points conduct weekly quality control checks. Volunteers devote a few hours per week.
Volunteer Capacities: Volunteers do not need specialized technical expertise, though they need to demonstrate proficiency with open-source research, writing, and editing.

Activation

Request: "Produce Baseline Reports"

A request is drafted and the humanitarian organization activates the V&TCs using the Digital Humanitarian Network.

Deployment

Quality Control

In this example, the requesting organization uses its own reports as a baseline to compare and assess V&TCs´ participation. If the participation of volunteers makes the baseline reports better, the organization continues developing the partnership.

Feedback

The organization provides constant feedback to the volunteers, informing everyone about the project´s direction and how they are contributing to it.

Volunteer Management

To keep the volunteers motivated and engaged, the organization develops a series of training sessions and other capacity building activities.

Post-Deployment

Wrap-Up

The organization conducts a wrap-up of the operation with the V&TC and drafts a brief document with the lessons learned in collaboration with the volunteers. After that, the organization posts the report on a blog entry in its website.

Recognition

As a form of recognition, the organization makes certificates for every volunteer and publishes their names together with a thank you note on the organization´s website. The organization also encourages the volunteers to continue working together.

Checklist

When drafting your activation request, do the following:

INFORMATION COMPLEXITY

- [ ] Conduct a full and thorough scoping of available resources, and provide this information to volunteers to prevent duplication of efforts.
- [ ] Define the parameters of inquiry, highlight existing gaps, and provide clear examples of expected outputs.
- [ ] Agree on standards of confidentiality and data security, and draft an agreement between the organization and V&TCs if necessary.

VOLUNTEER CROWD SIZE

- [ ] Collaborate with V&TC focal points to determine the number of volunteers you need and how long you need them.
- [ ] Craft a communications and outreach strategy to engage volunteers .

INTENSITY OF ENGAGEMENT

- [ ] Dedicate the necessary amount of time and human resources to guide volunteers in accomplishing their tasks.
- [ ] Agree on communication structures and coordination mechanisms.
- [ ] Determine focal points and establish clear expectations for check-ins.

VOLUNTEER CAPACITIES

- [ ] Specify the functions and roles that need to be present in the team.
- [ ] Identify the skills you need for desired output.

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ANNEX I | **PREVIOUS V&TC DEPLOYMENTS**

This annex provides snapshots of recent deployments to illustrate the range of possibilities for collaborating with V&TCs. This selection is not representative of all V&TCs, nor can it possibly encompass all of their work in the humanitarian space and beyond.

To explore other examples, please consult the website of the DHNetwork (www.digitalhumanitarians.com), in addition to other resources from V&TCs.

A Revolution in Digital Humanitarianism | Earthquake in Haiti (*January 2010*)

Many perceive the response to the January 2010 earthquake in Haiti as a turning point in digital humanitarianism: the extent of volunteer online engagement highlighted the potential and the limitations of leveraging this virtual community.[17] V&TCs actively participated in a wide range of data-collection and analysis activities. Their speed and rapid innovation posed a stark contrast to slower, more structured and traditional information management systems.

Some notable contributions include the following:[18]

- OpenStreetMap built a street map of Haiti from scratch in about two weeks—a project that should have taken about a year. Approximately 640 volunteers participated in this effort.

[17] Haiti was also a turning point in the UN's engagement with the crisis mapping community to integrate crowdsourced information into its decision and policymaking processes, especially on how to respond to rapid onset emergencies. For more, please see Daniel Stauffacher, "Strengthening Crisis Information Management," *UN Chronicle* Vol. XLVIII No. 3 (2011), http://www.un.org/wcm/content/site/chronicle/home/archive/issues2011/thedigitaldividend/strengtheningcrisisinformationmanagement; ICT4Peace Foundation, Sanjana Hattotuwa and Daniel Stauffacher, "Merging Common Operational Datasets with Crisismapping Sources," (October 2010), http://ict4peace.org/wp-content/uploads/2010/10/UN-and-CrisisMapping.pdf; and ICT4Peace Foundation, Sanaja Hattotuwa and Daniel Stauffacher, "Haiti and beyond: Getting it right in Crisis Information Management," (March 2010), http://ict4peace.org/pubs/Haiti%20and%20beyond%20Getting%20it%20right%20in%20Crisis%20Information%20Management.pdf.

[18] Harvard Humanitarian Initiative, *Disaster Relief 2.0*, (2011).

- The CrisisMappers community became the central mechanism for coordinating imagery and mapping activities in Haiti, with more than 550 members participating in the effort from UNOSAT, Google, GeoEye, Digital Globe, OpenStreetMap, the San Diego State University Visualization Lab and other organizations.[19]

- The Sahana Software Foundation and the Sahana community responded with a massive volunteer effort, setting up the Sahana Haiti 2010 Earthquake Disaster Response Portal. This live and active website provided responders with access to all of Sahana's modules, including the Organization Registry (a searchable database of organizations responding on the ground) and the Food Cluster Food Request Portal, which is a request-based planning tool that allowed the World Food Program's implementing partners to schedule delivery and pick-up through SMS messages. Sahana volunteers also geolocated approximately 100 hospitals over 24-hours, providing the most accurate and complete source of operating hospital facilities in the first two months after the earthquake.[20]

- Volunteers from the Fletcher School at Boston's Tufts University and elsewhere used the Ushahidi platform to aggregate, geolocate and prioritize incoming messages from various social media, and provide geolocated reports of trapped individuals to urban search and rescue teams on the ground. Through partnerships with Haitian telecommunications companies, volunteers established a single SMS shortcode for aid requests. Ushahidi compiled a translation and mapping microtasking platform that engaged the Haitian diaspora and others to push this information to the humanitarian community, affected people and anyone who accessed the online map around the world.

- Members of the OpenStreetMap community formed the Humanitarian OpenStreetMap team (HOT) a year earlier, and helped Haitians to map their communities. The HOT team trained

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[19] For further details on CrisisMappers' efforts in Haiti, please see Patrick Meier and Jen Ziemke, "Measuring our Response: An Executive Summary", (1 March, 2010), https://docs.google.com/document/edit?id=1qAraVZvoEf_LDHBhAuu2ZknkZSXpRJQMGMj5XSqpLE4.

[20] United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development, "ICT for Disaster Risk Reduction: ICTD Case Study 2", May 2010. Available at http://wiki.sahanafoundation.org/lib/exe/fetch.php/sahana-ictd-case-study-2.pdf.

over 500 Haitians in basic mapping and assessment techniques, and it fully mapped over 100 IDP camps and 200 schools in Cité Soleil over several months, beginning in August 2010. In Haiti HOT has committed to a long-term presence in Haiti, demonstrated successful collaboration with large UN agencies, and sustainably engaged local communities.

- Humanity Road is a collective of volunteers trained to use Internet and mobile communications technology to collect, verify, and route information to aid agencies and first responders during sudden-onset disasters. Humanity Road provided the first online reference of Creole First Aid instructions. Working with Healthmap, an organization that uses GIS to track infectious-disease outbreaks, the V&TC helped to map the cholera outbreak in November 2010, and communicated information about prevention, control, and reporting methods through social media.

Training and Capacity-Building of V&TCs | OCHA Colombia Earthquake Simulation (*November 2010*)[21]

Based on the Haiti experience, OCHA Colombia organized an earthquake simulation with the Standby Task Force (SBTF) to test V&TCs' ability to participate and contribute to emergency operations. In the simulation, local responders' ability to coordinate operations was extremely compromised due to spotty Internet connections and unreliable mobile networks. SBTF's specific objectives for the simulation were to test the SBTF activation protocols, evaluate workflows for processing emergency messages, test communication channels established for coordination and evaluate SBTF's ability to respond to specific crisis-mapping requests.

The initiative was important for SBTF because it demonstrated an active effort by OCHA Colombia to engage in a learning process with the volunteers. At the end of the exercise, OCHA staff shared recommendations for

[21] Jaroslav Valuch et al., "Standby Task Force Participation in UNOCHA Colombia Earthquake Simulation 2010", (January 2011), http://blog.standbytaskforce.com/wp-content/uploads/2011/01/Standby-Taskforce-Colombia-Simulation-2010-Deployment-Report-1.pdf and Jaroslav Valuch, "Colombia Earthquake Simulation - testing ground for volunteer mapping and response cooperation", (2 January, 2011), http://blog.standbytaskforce.com/columbia-earthquake-simulation-%E2%80%93-testing-ground-for-volunteer-mapping-and-response-cooperation/.

improving SBTF's future collaboration with humanitarian responders. They also developed an evaluation report that outlined key areas for improvement, and offered a road map for many V&TCs to improve their engagement with formal humanitarian organizations.

(Unexpectedly) Generating Innovation | Libya Crisis Map (*2011*)

In March 2011, OCHA's Information Services Section activated SBTF to provide live crisis-mapping support in Libya. A massive amount of information was being generated both inside and outside the country, but the UN did not have staff inside the country, and its personnel outside Libya could not process the data stream quickly enough. Under these circumstances, OCHA decided to deploy volunteers to generate a Libya Crisis Map.

Two DHNetwork members provided support for the deployment: SBTF and the UN Volunteers' (UNV) online volunteering service. SBTF provided the bulk of volunteers for the first four weeks of the deployment, while UNV volunteers continued working beyond the official SBTF deployment. In partnership with OCHA, those volunteers provided critically needed situational awareness of the dynamic humanitarian situation in the country.

As Andrej Verity (OCHA) pointed out,[22] one of the unintended consequences of this collaboration was the manner in which OCHA adapted its processes, working tools and communication systems to work with the V&TCs. The volunteers used processes and methods that were not widely adopted at the UN, and working with these groups pushed OCHA staff to open up to new tools and platforms for working. The experience prompted OCHA to start a series of working groups, known as Communities of Interest, to explore areas of further collaboration between V&TCs and formal humanitarian organizations.[23]

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[22] Andrej Verity, "The [Unexpected] Impact of the Libya Crisis Map and the Standby Volunteer Task Force", January 9, 2012. http://blog.standbytaskforce.com/sbtf-libya-impact/.

[23] Anahi Ayala Iacucci, "Libya Crisis Map Deployment 2011 Report", (1 September, 2011), http://blog.standbytaskforce.com/libya-crisis-map-report/.

Unleashing the Power of Data for Social Change | DataKind's First DataDive in New York (*October 2011*)[24]

On the weekend of 14 October 2011, over 50 data scientists, developers and IT specialists partnered with the UN Global Pulse, The Microfinance Information Exchange Market (MIX Market) and the New York Civil Liberties Union to better understand these organizations' data and to build visualizations, analyses, and applications for them. For the MIX Market case, the team focused on building data-acquisition tools to collect microfinance information from nine online sources. The programmers built a custom data scraper for each website that automated the data-collection process. The code for each scraper was handed over to MIX Market, and is now available in open source through the team's Github account. In less than a day, the developers located and cleaned the same amount of data that took MIX Market's Africa team located and cleaned in nine months.

Collaborating with Mainstream Media | Al Jazeera Balkans Snowstorm Map (*2012*)[25]

In early 2012, snowstorms caused considerable damage in the Balkans. Al Jazeera had previous experience of deploying SBTF to map the response to an earthquake in Turkey in late 2011. Based on this experience, Al Jazeera asked SBTF to deploy volunteers fluent in local languages to map incident reports coming in via tweets, e-mails and text messages. Using an Ushahidi platform, volunteers identified more than 250 reports of electricity shortages, road damage, critical needs, and other information relevant to emergency response.

In the two weeks after its launch, the crisis map was the most popular page on the Al Jazeera Balkans website on a daily and weekly basis. In some instances, the crisis map was the first to break news. Comparatively, the map provided among the most comprehensive coverage of the snowstorm in the region.

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[24] More information on DataKind's DataDive in New York can be found at http://datakind.org/york-city-datadive/ and http://datakind.org/2011/11/microfinance-information-exchange/.

[25] Patrick Meier, "Al Jazeera's Crisis Map of the Snowstorm Emergency in the Balkans", (22 February, 2012), http://blog.standbytaskforce.com/al-jazeeras-crisis-map-of-the-snowstorm-emergency-in-the-balkans/. The map can be seen here: http://balkans.aljazeera.net/makale/snjezna-oluja-nad-balkanom.

Direct Assistance to Government | MapAction and the Madagascar Floods (*March 2012*)[26]

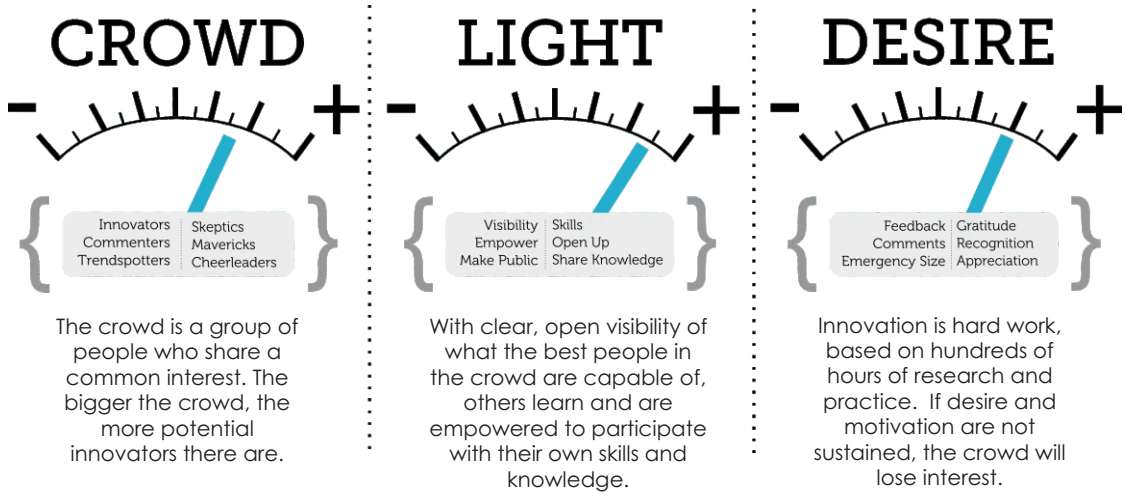
In March 2012, MapAction deployed a team of volunteers at the request of the Madagascar Government's National Bureau of Risk and Disaster Management. The volunteers boosted the agency's GIS capability, which was working intensely to respond to two large-scale events: Tropical Storm Irina (65 deaths and more than 70,000 affected people), and Tropical Storm Giovanna (35 deaths, 284 people injured, and 250,000 people affected).

Partnering with Development Agencies | USAID's First Crowdsourcing Initiative (*June 2012*)

On 1 June 2012, USAID launched its first crowdsourcing initiative to clean and geolocate the agency's Development Credit Authority data. With the assistance of GISCorps and SBTF, what was estimated to take 60 hours was accomplished in 16 hours, with the completion of 2,300 records (or 10,000 unique database entries) on a platform developed by Data.gov. The results not only arrived faster, but were more accurate than the automated geocoding processes previously employed by USAID. This was even more remarkable considering that volunteers were given some of the most difficult and confusing data of the whole dataset. Thus, a key outcome of the event was evidence that crowdsourced and volunteered geographic information was not any less reliable than so-called authoritative data.[27]

[26] MapAction, "Madagascar Floods, March 2012", http://www.mapaction.org/deployments/depldetail/208.html.
[27] Shadrock Roberts, Stephanie Grosser and D. Ben Swartley, "Crowdsourcing to Geocode Development Credit Authority Data: A Case Study", (Washington, D.C.: United States Agency for International Development, 2012). Available at: http://transition.usaid.gov/our_work/economic_growth_and_trade/development_credit/pdfs/2012/USAIDCrowdsourcingCaseStudy.pdf.

ANNEX II | **CROWD-ACCELERATED INNOVATION**



Chris Anderson. How web video powers global innovation. http://www.ted.com/talks/lang/eng/chris_anderson_how_web_video_powers_global_innovation.html. 2010.

V&TCs are not only shaping the information management landscape; they are pushing organizations to become more open, connected and communicative internally.[28] By encouraging organizations to open up, V&TCs are not simply forcing a culture change; they are fostering an environment that enables crowd-accelerated innovation.

Though part of a crowd, each volunteer plays a unique role, whether as commentator, cheerleader, trend-spotter or innovator. With a larger, more diverse crowd, there is a greater potential for innovation and iterative learning within the community and the larger ecosystem in which it exists. This can have massive payoffs in discovering faster, more efficient ways of organizing and accomplishing tasks.

Furthermore, by encouraging formal organizations to become more transparent in sharing information, volunteers can learn from well-

[28] OCHA Information Management Officer Andrej Verity has described how interaction between humanitarian responders and V&TCs has not only extended information management capacities, but also pushed traditional humanitarian actors to reconsider their organizational processes. See Andrej Verity, "The [Unexpected] Impact of the Libya Crisis Map and the Standby Volunteer Task Force" (9 January, 2012), http://blog.standbytaskforce.com/sbtf-libya-impact/.

established organizational expertise and build on their existing knowledge and skills, which accordingly allows them to make richer contributions within the V&TC. This process of "letting in the light" enables volunteers to see what the best people in the ecosystem are capable of, whether in the crowd or in an organization. In turn, they are motivated to continue contributing and improving.

The last piece enabling this process of crowd-accelerated innovation is sustaining the desire and drive of volunteers. Keep in mind the importance of sustaining volunteer engagement, and fuel the volunteers by giving feedback, recognition, appreciation, and gratitude.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