The OCHA Sitrep: Open Access and Political Pressure in Humanitarian Information

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Table of Contents

Acknowledgements

Abstract

Timely, accurate information is a critical resource in the humanitarian response to disasters. To address this need, many in the humanitarian community have promoted the sharing of information through systems allowing open access to all users, but agencies have struggled to put this ideal into practice. This paper looks at one such open access system, the publication of emergency situation reports, or "sitreps," by the UN Office for the Coordination of Humanitarian Affairs. Our research, including interviews and group discussions with over 100 OCHA staff and external stakeholders, suggests that one key challenge in the implementation of open access systems is the additional set of political concerns that apply when sharing information with a wide range of known and unknown actors. Based on our findings, I argue that the pressure to present the information in a way that is palatable to all audiences incurs a heavy cost to the accuracy, completeness, and timeliness of the information provided, undermining its usefulness in operational decision making. I present a set of themes illustrating these challenges in the OCHA sitrep process and discuss potential system design approaches to mitigate their impact.

Introduction

"Now more than ever, the humanitarian community must base its interventions on objective, reliable and timely information... Simply put, information well used can save lives."
John Holmes, UN Under-Secretary General for Humanitarian Affairs (UN 2008, vi)

Timely, accurate information is a critical resource in the international humanitarian response to disasters, allowing relief organizations to understand the needs of those affected and respond effectively. Reliable data on the scope of an emergency, its geographical extent, the risks to vulnerable populations, the level of relief activities already underway, and the high-priority concerns are a prerequisite for the successful coordination and response of the diverse coalition of government entities, UN agencies, non-governmental organizations, and international donor organizations that make up the humanitarian community.[1] The largely decentralized nature of the humanitarian system – in John Holmes' words, "not a system in the sense of having been designed, but rather a somewhat haphazard collection" (UN 2008, 42) – means that information about the emergency is often fragmented, held by many different actors with different goals, areas of expertise, and management structures.

As a result, recent years have seen an increasing emphasis on sharing information between humanitarian partners, exemplified in the proceedings of the 2002 Symposium on Best Practices in Humanitarian Information Exchange and the 2007 Global Symposium +5 which followed (UN 2002, UN 2008). These efforts

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[1] See Appendix 1: The Humanitarian Context for an overview of the humanitarian community and a brief history of recent efforts in humanitarian reform.

have largely focused on overcoming the many obstacles to sharing information, including limited resources, technical barriers, and inter-agency competition. These barriers have been amply documented (see, e.g., Maiers et al. 2005, Solomon and Brown 2005); as noted in the Global Symposium report, despite broad agreement on the potential benefits of increased information sharing, "[c]hanging the culture of information exchange within the humanitarian community still has a long way to go" (UN 2008, 29). The policy statements resulting from these conferences have highlighted the need for open access to humanitarian information, articulated as the principle of Accessibility: "Information and data for humanitarian purposes should be made widely available through a variety of online and offline distribution channels, including the media" (UN 2008, 24).

As some commentators have noted, however, sharing information in a disaster context is rarely a neutral act. Rebecca Knuth, for example, argues that "[a]ccess, collection, interpretation, and dissemination of information fall prey to the roles, policies, political missions, and mandates of particular actors in an emergency" (Knuth 1999, 11). While Knuth focuses primarily on the role of governments in influencing emergency information, Paul Currion makes a similar point from the perspective of humanitarian agencies, suggesting that information is often "perceived as a tool to gain donor funds, win media attention or accrue political influence" (Currion 2006, 39). The implication is that facilitating open access to humanitarian information may be as problematic as not sharing information at all.

This paper looks at one open access system, the publication of emergency situation reports, or "sitreps," by the UN Office for the Coordination of Humanitarian Affairs. OCHA sitreps are brief documents released periodically over the course of an emergency, bringing together information from a variety of humanitarian sources to present a broad overview of the situation on the ground. As a service open to both the humanitarian community and the public, the OCHA sitrep is one of the only information products in the humanitarian space that meets the majority of the Global Symposium principles for information sharing,[2] and in particular that meets the principle of Accessibility.

The central premise of this paper is that there is a significant trade-off between the accessibility of OCHA's situation reporting and the timeliness, accuracy, completeness, and credibility of the document. Our research,[3] including interviews and group discussions with over 100 OCHA staff and external stakeholders, suggests that one key challenge in open access systems like that of the OCHA sitrep is the additional set of political concerns that apply when sharing information with a wide range of known and unknown audiences. Based on our findings, I argue that the pressure to present the information in a way that is palatable to all potential readers incurs a heavy cost to the depth and quality of the information provided, undermining its usefulness to the humanitarian community. I present a set of themes from our research, exploring areas of the OCHA situation reporting process that have been particularly affected by this challenge. Guided by

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[2] The Global Symposium +5 articulated 13 principles in its Final Statement. See Appendix 2: Global Symposium +5 Principles for an overview and analysis of this list.
[3] The use of the first-person plural in this paper refers to the four-person team who conducted the research, including myself, Elisa Oreglia, Megan Finn, and John Ward.

these examples, I discuss potential system design approaches to mitigate impact of political pressures, looking broadly at how humanitarian information systems might avoid, manage, or embrace the many competing interests that surround them.

Research Overview

PARTICIPANTS

This paper draws on 69 interviews and six group interviews conducted between October 2007 and August 2008 with over 120 participants from the international humanitarian community. The majority of these interviews were arranged in collaboration with OCHA's Advocacy and Information Management Branch, taking place either over the phone or in person during trips to OCHA's offices in New York City, Geneva, and Nairobi. Participants included staff from OCHA, international donor organizations, humanitarian agencies in charge of leading sectoral "clusters,"[4] and NGOs. Interview citations in this paper are identified by participant number (e.g. "P66"), organization type (OCHA, Donor, Cluster, or NGO), and either "HQ" (indicating staff at the headquarters office of a given organization) or "Field" (indicating staff in country or regional offices). For group interviews, referred to as "round-tables" in the OCHA context, the designation "RT" and the group interview number is used, rather than a participant number. A breakdown of interviewees by organization type can be found in Table 1.

We selected participants in consultation with staff at OCHA, focusing on people whose job functions or work history put them in frequent contact with

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[4] See Appendix 1: The Humanitarian Context for an overview of the cluster approach.

aspects of the situation reporting process. Within OCHA, this included reporting officers, information management staff, desk officers responsible for managing communications with particular country or regional offices, and some senior management at both the field and headquarters level. During our first round of interviews with OCHA staff in New York, we identified the need for follow-up with more field-level staff and with a range of external stakeholders, especially among sitrep recipients. This led to our trips to Geneva and Nairobi, where we spoke with OCHA country office staff; participants from the international donor community, including both large- and small-scale donors; NGO staff, who both provide information for the sitrep and constitute one of its many audiences; and staff from several of the cluster lead agencies. While hardly a comprehensive survey given the size and diversity of the humanitarian community, the broad range of interviewees from different organizations and vantage points helped to give us a rich overall perspective on the process and the views of its many stakeholders.

Organization Type	Office	Interviews	Group Interviews	Participants
OCHA	HQ	27	2	57
OCHA	Field	12		18
NGO	HQ	3		4
NGO	Field	11		12
Cluster	HQ	3	2	12
Cluster	Field	5		7
Donor	HQ	4	2	12
Donor	Field	4		5
	Totals	**69**	**6**	**127**

Table 1. Participants by organization type

METHODOLOGY

Interviews consisted of semi-structured conversations with one to three participants, or, in the case of group interviews, four to 15 participants, and ranged

from 45 to 90 minutes in length. Participants were asked about their experiences with situation reports, ideas for improving the document or process, and their perspectives on information sharing in the humanitarian community. At least one researcher took detailed notes during each of the interviews, and audio recordings were made in most cases; quotes in this paper that have not been checked against a recording are marked "notes." Once the interviews were conducted, we used a grounded theory approach (see Charmaz 2005) to identify common themes and key findings.

LIMITATIONS

Though our close collaboration with OCHA on this project allowed us to interview a wide range of key stakeholders in the situation reporting process, that collaboration also constitutes an important limitation in our research. With the exception of NGO participants, who were mostly recruited through personal contacts, the majority of our participants were selected, approached, and their interviews scheduled with support from OCHA staff. In particular, two potential limitations were likely introduced by our collaboration with OCHA: first, that our sample did not include representatives from all groups of sitrep recipients, missing those unknown to or considered unimportant by OCHA staff; and second, that despite our efforts to present ourselves as a neutral third party, some participants may have responded in ways colored by our close association with OCHA (for example, making efforts to present their opinions or work as they would to OCHA staff).

Another potential limitation may be found in the location of our field research. Although we spoke to participants working in many regions, we traveled to only one non-headquarters location, Nairobi. Nairobi's status as a hub of humanitarian activity, a central management point for relief efforts in a variety of complex emergencies, and the site of a recent crisis in the wake of the 2007 Kenyan elections made it an attractive choice for research, but these factors may also skew the perspectives of our participants. In particular, the chronic crises and political upheaval that have characterized the Horn of Africa for many decades may lead some participants to exaggerate the extent to which political tensions play a role in global humanitarian reporting; however, the phone interviews we conducted with field staff from other regions suggest that similar issues obtain in a number of other troubled areas of the world.

The OCHA Sitrep

"Several different types of assessment reports, often called 'situation reports,' may be used to broadcast the analyzed information to users... Reports are generally presented in a numbered, sectioned format that describes specific response tasks within separate sections. This format makes it easy for responders to find and use the information that pertains specifically to their needs..."
Coppola 2000, 260

"People always expect the sitrep to be something other than what it is."
P62, OCHA/Field

Situation reports have long been a cornerstone of humanitarian reporting. Tracing their roots to military communications and originally dispatched by telex or fax, sitreps are now commonly used within humanitarian organizations as a way to

share information about the situation on the ground with staff in headquarters or other offices. Sitreps are serial documents, often sent on a daily basis in the early phase of a sudden-onset emergency and decreasing in frequency as the situation stabilizes; as one participant put it, the frequency of publication "needs to respond to the heat of the crisis" (P54, Donor/HQ). In addition to OCHA, some of the UN agencies and almost all of the NGOs represented in our research use sitreps in emergencies as a matter of course.

Though the document format may vary widely based on the disaster, the author, and the phase of the response, sitreps are usually divided into sections covering different aspects of the emergency, the relief efforts currently underway, key resource needs, planned activities, and potential risks. Sitrep functions often span several of the humanitarian information system components proposed by Maxwell and Watkins (2003), including emergency needs assessment, program monitoring, and context monitoring. The sitrep is generally written by staff in the field, either in offices near the site of the emergency or in a central country office, and then sent to headquarters staff (usually in North America or Europe). Some or all of the information may be second-hand, based on reports from staff or other actors directly involved in the response. Though it may include quantitative data, the sitrep is primarily a narrative document, usually disseminated by email as a Microsoft Word or PDF file.

The OCHA sitrep is unusual for two reasons. First, OCHA sitreps are generally composed entirely of information from other organizations, including UN agencies, NGOs, and the local government. The process for collecting this

information differs by country, but increasingly follows the framework of the cluster approach,[5] with OCHA depending on cluster leads for all the information pertaining to a given sector. Second, OCHA sitreps are generally public documents, disseminated widely both within the humanitarian community and among external audiences including national governments, the media, and academic researchers. OCHA sitreps are distributed via email, without restriction on how they may be forwarded or shared, and usually posted on one or more public websites, including ReliefWeb, an OCHA site often regarded as a key source for humanitarian news and information. The OCHA sitrep process may thus be thought of as an open access system following a "service" model (Schofield 2002), aggregating many different field-level information sources into a product that can be shared with a wide readership. Though it forms only a small part of the overall humanitarian information ecosystem, our interviewees identified it as one of the only consistent public information sources available across different disaster contexts, and many referred to it as a valuable point of reference.

The widespread view among our participants, however, was that OCHA sitreps were often lacking in quality, timeliness, and credibility. OCHA staff reported that the process was rarely fast enough to allow humanitarian staff to make operational decisions: "The sitrep is too slow a medium, especially for immediate decisions in the field, to move blankets and move people… when you put this information in the sitrep it's already too late." (P32, OCHA/HQ, notes). International donors, even those who considered the OCHA sitrep a useful source

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[5] See Appendix 1: The Humanitarian Context for an overview of the cluster approach.

of information, voiced   concerns over its reliability: "It's a good source of information in general, but not good for the final word if there are no other sources – we can't always use the information." (RT3, Donor/HQ). Concerns over the OCHA sitrep's credibility and information quality led some of the senior decision makers we interviewed to reject the document entirely: "Very nicely written, no use for me. Fine-tuned, very bland, for public consumption – I don't need that, I need to know what's going down." (P66, Donor/Field, notes). While most participants took a more moderate view, it is clear that many in the humanitarian community felt the sitrep had significant issues of accuracy and reliability that compromised its usefulness. As every OCHA writer we spoke to attested, the sitrep is difficult and time-consuming to produce, and the feeling that it was not adding real value for decision makers was a key source of frustration for report staff.

One issue that emerged from our discussions on the challenges of producing a timely, reliable report was the role that political pressures often played in shaping the information it contained. This is by no means a problem confined to disaster response; as Alter (2006) notes, shared information is often subject to distortion and suppression from actors wishing to "represent that knowledge in a way that is favorable to particular interests, viewpoints, or beliefs" (2). In the humanitarian context, however, this effect can be especially powerful. A variety of authors (e.g. Natsios 1995, Knuth 1999, Cooley and Ron 2002, Donini et al. 2008) have chronicled the complex political landscape of humanitarian response; as Donini et al. describe, "In setting after setting, core humanitarian principles are tested by the prevailing agendas of local and external political actors" (9). Knuth in particular has focused on the difficulties this environment creates for information

flows, highlighting how "the nature of complex emergencies makes the collection and dissemination of situational data problematic" (Knuth 1999, 14). Sharing information in disasters is a political act, often serving to further or protect the interests of particular actors in a turbulent environment, and these political concerns may be in direct conflict with the ability of information providers to offer accurate, objective information.

The ideal of open access promoted by the Accessibility principle of the Global Symposium +5 Final Report is particularly problematic here. As Currion has argued,

> "Openness is a much more difficult proposition in many of the environments in which these organisations work, as political sensitivities... can be much harder to manage. The questions of when and how to offer particular partners access to organisational information is one with which agencies will have to grapple repeatedly." (Currion 2009, 36)

In keeping with this observation, our research has suggested that the tension between political pressures and operational information needs is significantly greater when the information is shared publicly in an open access system.

Themes

In the following section, I present a set of themes from our interviews, looking at recurring areas of political conflict in the OCHA sitrep process. Though hardly the only examples of this challenge, these areas came up in a number of conversations, allowing an illustration of each theme from a variety of perspectives and providing a rich context for exploring the ways in which competing interests can influence and undermine the process of information sharing.

One of the most common discrete pieces of information in the OCHA sitrep, and one of the most discussed and disputed, is the number of people affected by the emergency. For large-scale emergencies, this can be an incredibly difficult figure to estimate accurately, especially in the early phases of an emergency (see Benini 1997, Olsen 2003). This difficulty is compounded by the ambiguities of the word "affected," as many of our participants pointed out. Even were a precise definition available, however, an accurate number would likely prove elusive in all but the smallest-scale emergencies (as evidenced by a parallel difficulty, though one less important to humanitarian operations, in arriving at a death toll – despite the clearest of possible definitions).

Unfortunately, this number is also one of the most important data points in the humanitarian response, serving as a key indication of the scope of the emergency for both international donors and humanitarian agencies. This combination – high importance, high level of subjectivity in the estimate – makes the number of affected people a particularly common locus of disagreement, tension, and conflict. As one participant put it, "You get into a numbers game. It's a bad game to get into… Anyone who's been in this business knows that numbers need to be treated with caution" (P66, Donor/Field, notes). At times this conflict is a technical one, based on different approaches to the estimate; more often, however, the conflict is (or is perceived to be) political, with different actors

attempting to push the number toward one which would suit their particular interests.

Participants offered numerous cases of distortion around the number of people affected (and closely related numbers, such as the number of people displaced). The most common example was distortion by the local government. As one participant noted, even in countries with relatively strong and stable central governments, "They often downplay emergencies and play up their ability to respond, so you take it with a grain of salt." (P1, NGO/Field, notes). The result is often seen in the estimates of affected population; one interviewee described a situation in which the official figure of the local government differed from the those being proposed by NGOs by a factor of 100. There is often significant pressure on OCHA to reflect the government perspective:

> "We have to bear in mind political sensitivities. We have to bear in mind that one of our top priorities as an international organization dealing with the country is a very close relationship with government authority, so we cannot risk this relation by making political mistakes in information."(P37, OCHA/Field, notes)

Governments may play down the number of people affected in order to keep humanitarian actors out, or exaggerate the number in hopes that more aid will flow into the country. While OCHA and other UN agencies are certainly capable of contesting the official view of the local government, this can be a highly controversial act; participants described one example in which publishing a contentious estimate of displaced people required days of deliberation and consensus by senior management from several major UN agencies.

The government was not the only actor accused of distortion. Some international donors voiced suspicion that humanitarian actors might inflate the number of people in need in order to solicit the funding they need to operate:

> "We have, not a problem, with sitreps – I don't want to say they exaggerate, but we need a bit of realism... What's really needed, what's just trying it on? Historically, the [funding] appeals are really high, they're only ever 50 percent subscribed – so the question is, are they too high, or are we under-funding them, or is the analysis off? … They might inflate the needs." (P54, Donor/HQ, notes)

Several OCHA interviewees echoed the issue described here – as humanitarian appeals are rarely fully funded, there is an incentive to present the needs as greater than they are, in order to ensure adequate international support at a lower level. As one OCHA headquarters officer put it, if you present the minimum needs and only receive half of the funding requested, the consequences can be dire (P14, OCHA/HQ). As a result, donors rarely take the numbers at face value: "We look at numbers coming from other actors – the Red Cross movement, the government – and we try to explain the discrepancies" (P56, Donor/HQ, notes). In addition to undermining the accuracy of the sitrep, struggles over numbers can affect its credibility: "If the Red Cross figures are very different... then OCHA seems less credible, we lose faith" (P54, Donor/HQ, notes). In other cases, OCHA staff themselves expressed doubt about the numbers presented by humanitarian agencies, but felt forced to report them nonetheless:

> "A lot of the information is not correct and we know it. I wonder if this is what is really happening on the ground? We are following the UN official figures." (P62, OCHA/Field, notes)

The conflict over numbers exemplifies the way in which a very concrete operational concern – the basis of technical estimates for tarps, latrines, and

truckloads of supplementary rations – can increasingly become a political concern when it is shared in public. A number that has a functional purpose in planning a humanitarian operation may have an advocacy purpose when directed at a donor, a publicity purpose when directed at a journalist, and a public relations purpose when directed at the local government, and each case may require a somewhat different number. The political aspect to the number of affected people is undoubtedly in evidence in private settings as well – an NGO fund-raiser alone with a donor surely has an incentive to inflate the number – but OCHA faces the unenviable challenge of pleasing all of these audiences at once. Because the audience is unknown, OCHA must assume the worst, in this case that the number cited will be seen and contested by any actor with a reason to do so. Further complicating matters, the audiences are aware of each other, and aware of the political pressure for OCHA to report in a particular way: "We begin to interpret if OCHA is under pressure from certain UN agencies to present certain facts" (P84, NGO/Field, notes). The result is both a distortion of the number and an erosion of OCHA's credibility.

VISIBILITY

A wide variety of stakeholders mentioned the perceived importance of having one's organization mentioned in an OCHA situation report: "Everybody wants to see their name in" (P39, OCHA/HQ). For relief organizations, a mention in the OCHA sitrep is seen as providing recognition for their work and potentially valuable visibility with international donors, helping them to raise new funds and justify those they have already received. This desire was expressed by donors as well: "Donors also appreciate visibility" (RT1, Donor/HQ). The value of visibility is

underscored by numerous reports of complaints received: "You need to mention everybody's name, otherwise people will complain" (P25, OCHA/HQ, notes). This assertion was frankly supported by participants from NGOs and cluster lead agencies:

> "I always look for my own stuff, to see if [my agency] is there. If it is, then I look at who else is there; if not, then I call OCHA to complain." (P57, Cluster/HQ, notes)

The common feeling was that agencies' insistence on recognition overloaded the situation report with meaningless minutia – what one participant referred to generally as the "two chickens" phenomenon, referring to the trivial scope of the projects stakeholders submitted for inclusion: "We list the three latrines, or the two chickens, and they're happy... It's ridiculous" (P18, OCHA/Field, notes). Although many participants described the push for visibility as a way for agencies to seek funding, donors, for the most part, flatly rejected the idea that a mention in the sitrep would influence their funding decisions; one donor derided such efforts as "wasted energy" (P59, Donor/HQ). In addition to burdening the sitrep with a litany of details that often obscure the clear overview many recipients desire, there is a danger that the depiction of the relief will be dominated by "squeaky wheels," while organizations less concerned with visibility – often large, well-funded organizations doing an important share of the relief work – are absent.

In his classic work *The Presentation of Self in Everyday Life*, Erving Goffman suggests that the need to "perform" one's work, in addition to actually doing it, becomes increasingly necessary when much of the actual work is largely invisible

(Goffman 1956, 32). This is clearly an important issue for humanitarian actors involved in relief efforts far from the donors and other stakeholders who support their work. The desire for visibility, in this view, is less about explicitly seeking funding or recognition, and more about advertising the fact that one's organization is working at all. As one NGO participant put it, explaining the need to be mentioned, "If we weren't [in the OCHA sitrep], we weren't there" (P84, NGO/Field).

In the context of the OCHA sitrep, however, this pressure for public visibility can be in direct tension with the functional aspects of the document. While providing aggregated information about the relief effort is an important aspect of the document, the pressure to name every responding agency has the potential to make the sitrep, intended as a concise overview, practically unusable:

> "Nobody wants to know that this mom-and-pop NGO delivered tents to this place... People use it as vehicle to self-promotion... [it] leads the thing to become a mammoth document."(P31, OCHA/HQ, notes)

The result was a sense of frustration common to sitrep writers:

> "I am sick of [this agency] saying that we didn't say that they did this and that. It is not as relevant as what people need and where. This is where there is cholera, blankets. People forget that the sitrep is for that, rather than who has done what." (P24, OCHA/HQ, notes)

As in the case of the numbers game, while visibility is certainly desirable in a context where the audience is limited and known, the importance of being included is significantly higher in an open access system. This is in part simply because more information providers read the OCHA sitrep, and see that others are mentioned, than would be true if the document were private. The open nature of the audience

also plays a role here, pushing humanitarian agencies to consider the best and worst case audiences (for example, a donor looking for an agency to fund, or one of the agency's current funders looking for evidence that their donation has been used appropriately). The OCHA sitrep writer, in turn, must consider the full range of actors who might complain for lack of mention as soon as the document is released, encouraging the inclusion even of those agencies who have not yet pushed to be named. The result is a distortion of the functional intent of the document, undercutting the requirements of the very donors to whom this tactic is meant to appeal: "What we're looking for is unmet needs. It's very difficult to measure when we're just getting a laundry list of assistance – it's very difficult to understand what's still necessary" (RT3, Donor/HQ, notes).

THE SITREP TEMPLATE

One of the goals of our collaboration with OCHA has been to help develop a standard template for situation reporting. Sitreps to date have been largely non-standardized, with different reports from different offices inventing their own formats on an ad hoc basis for each emergency. Our participants reported a fairly obvious set of problems arising from this variety: Writers spend time and energy developing their own formats, with few guidelines for what is required, and sitrep recipients are unsure what to expect from the document, especially in the advent of a new emergency.

Despite widespread support for standardization at the headquarters level and among the majority of sitrep recipients, the idea of a common template raised concerns for OCHA field staff. One common refrain in this discussion was the idea

that "every emergency is different," requiring a flexibility and independence that field staff were afraid a standard template might rein in: "If you come out with a template, you are limiting us" (P65, OCHA/Field). To a large extent, this concern seemed to reflect the tension between a central headquarters office and semi-autonomous field offices, echoing the field/headquarters divide described by a variety of researchers (see, e.g., Maiers et al 2005, 84; Saab et al. 2008, 5).

Participants from the cluster lead agencies generally supported a cluster-based template, with one describing the ideal OCHA sitrep as "cluster reports and a bit of topping and tailing" (P58, Cluster/HQ). Several interviewees, however, expressed concern about the way the process could shift the reporting burden onto them; as one participant put it, "Now we're all mini-OCHAs for our cluster" (P75, Cluster/Field, notes). On the OCHA side, some sitrep writers objected to a cluster-based template on the grounds that they could not rely on every cluster to supply information. The implication is that the template plays a role in structuring the process of sharing information, as well as the way in which it is organized and presented, and that this role may be a key source of conflict.

In some cases, participants both inside and outside of OCHA expressed concern about the potential for a standard template to bias the reporting process and the resulting document. The main feature of the template being proposed was that it was organized according to the cluster approach, with a section for each cluster (e.g. "Health," "Emergency Shelter," "Water, Sanitation, and Hygiene"). This organizational scheme was developed in response to the expressed needs of sitrep recipients, who were often called to make funding decisions or monitor

trends on a per-cluster basis. As some participants noted, however, by focusing on a UN-led organizational structure, there was a danger of biasing the report toward the UN response, neglecting other actors. This fear was well-founded; many participants noted that non-UN organizations were often poorly represented in the sitrep, despite their role in the response: "[OCHA's] mandate is to pull it all together, but what we see is actually a UN sitrep… their sitreps seem to assume the UN is the only player in a particular response" (RT2, Donor/HQ, notes). Another concern was the potential for heavy political influence by the local government in circumstances where government agencies were involved in the cluster process, as has been the case in some emergencies, which one interviewee suggested could compromise the neutrality of the information the clusters would provide.

Goffman suggests that actors tend to present their work in a normative manner, tending to "incorporate and exemplify the officially accredited values of the society" (Goffman 1956, 35). The standard template organized by cluster follows this model, effectively embodying the values espoused by the cluster approach. The necessity of presenting the officially sanctioned coordination approach in the template was recognized by the majority of our participants, but found tensions and vocal opposition in contexts where the ideal did not match the reality. One sitrep writer described the difficulty in reporting by clusters when clusters weren't functioning well:

> "UN agencies are adamant that they control information from their clusters. NGOs and donors are resistant to UN-dominated reports. A cluster-dominated report becomes a UN-dominated report... NGOs are still feeding this information to us – some are feeding it to clusters, but others have refused to give information to clusters... I still try to slip in NGOs reports in

other parts of our report. Otherwise it's super-dominated by the UN! Humanitarian action is not done by the UN!" (P88, OCHA/Field, notes)

The same concern was mentioned by a participant from one of the cluster leads, who described a recent emergency in which several official clusters had been established, but much of the real work was being done outside of the cluster system, concluding "if you have only clusters in reports, you are missing all the important issues" (P57, Cluster/HQ, notes). The need to represent both the humanitarian response and the information sharing process as they should be, rather than as they are, puts the political aspects of the template in direct tension with the functional requirement of accurately representing the relief effort.

THE CLEARANCE PROCESS

As noted above, a number of participants suggested that the OCHA sitrep was, as a rule, too slow to be useful, especially for field-level staff: "Definitively, the sitrep, when it comes out, no matter how quickly it is coming out, is not giving field people something new or something that they can use" (P53, OCHA/HQ, notes). In a number of cases, participants specifically rejected the idea that the sitrep was even a source of new information, given its late release: "By the time it's in an OCHA sitrep, it shouldn't be new to anyone who's reading it" (RT1, Donor/HQ).

The main reason behind the delay seems to lie in the clearance process. In most cases, before the sitrep is released to a wider audience, senior staff must sign off on, or "clear," the document: "If it leaves the building, someone must clear it" (P48, OCHA/HQ, notes). In different contexts, different levels of clearance are necessary; sitreps for a small natural disaster may be distributed on the approval of a mid-level manager in the field, while sitreps in a complex emergency, especially

those with potential political ramifications, may need to go through many layers of clearance at the field level and the headquarters level. In extreme cases, OCHA sitreps may require sign-off from the Humanitarian Coordinator (the senior-most UN official on the ground in an emergency) or the Under-Secretary General for Humanitarian Affairs (the head of OCHA). This can have a serious impact on the timeliness of the document:

> "Timing is tough. The field [office] would send it to us thinking it was all there. The field was putting in something that needed review. That takes us a day, and then we have to send it back." (P28, OCHA/Field, notes)

To compound this problem, in many cases the information OCHA receives from other relief agencies must go through the same process before it ever reaches the sitrep writers:

> "The information you get from other agencies is only what they want you to know. It is already information that they have collected and vetted themselves – so it gets to you late, more or less by definition." (P49, OCHA/HQ, notes)

In most examples, participants typically described at least one or two rounds of clearance before the sitrep was released publicly, often delaying the release by up to several days. One sitrep writer responsible for reporting in a late-phase emergency described a multilayer clearance process that often required an entire week from the day cluster leads provided their updates to the day the sitrep was released.

The clearance process is less an example of competing political concerns than an example of their ramifications; the need for a high-level review is a direct result of the perceived risks of releasing controversial information. Requiring an

experienced senior manager to clear the document offers a better chance of spotting potential issues, as well as appropriate apportionment of responsibility should problems arise. In the case of the OCHA sitrep, however, this political caution has serious consequences: significant delay in a context where time is of the essence.

Designing for Conflict

The challenges I have outlined above have important consequence for the design of humanitarian information systems. In discussing the "tussles" between competing interests in the context of computer networks, Clark et al. (2005) argue for "the need for network designers to think explicitly about tussle and the design requirements it implies" (462). This perspective asks those responsible for creating information systems to consider the political tensions and conflicts that occur as a central design challenge, rather than one on the periphery.

This has not, by and large, been the approach taken by the technical community toward humanitarian information systems. Researchers like Manoj and Baker (2007) and Huesemann (2006) tend to divide the problem of emergency information systems into technical, organizational, and social/cultural issues, with the implication, at times explicitly stated, that the latter issues are someone else's concern:

> "Organizational and cultural barriers are much more difficult and time-consuming to overcome... This is why we will focus on proposing a technical solution for information sharing in the humanitarian field." (Huesemann 2006, 281)

From the Clark et al. perspective, the fact that the social and organizational issues are particularly evident in the humanitarian space should push systems designers to consider them more, not less, in the design of humanitarian information systems. It is with this in mind that I consider the practical implications of the difficulties outlined in the previous section.

The OCHA sitrep is not an information system in the traditional sense. Apart from its distribution via email and the ReliefWeb site – the former, at least, a mostly ad hoc process – there is little technical support for sharing, storing, processing, or analyzing the information involved. Several participants remarked that aside from being written on a computer and distributed by email, there was little difference between modern sitreps and those from the pre-fax days. Nonetheless, it seems entirely appropriate to approach the set of templates, guidelines, and standard operating procedures from a systems design perspective – not least because there is a movement in OCHA and in peer organizations to implement a database-driven system for situation reporting and similar processes. In the following section I discuss three design approaches to address the kind of political "tussles" I have outlined in the examples, looking at the sitrep process as an information system and considering potential technical implementations.

THE CLOSED SYSTEM

Given my initial argument – that open accessibility significantly magnifies the type of political problems I have discussed, and undermines the functional value of the sitrep – the most obvious response is to close the system. This is the approach taken by most NGOs, whose field offices produce situation reports for

internal use. The method of restricting access may be more or less dependent on technical means; NGOs generally take the relatively low-tech approach of marking the document "For Internal Use Only" and distributing it on an internal mailing list, but it would be easy to imagine a system with a central server and authentication-based access control mechanisms. As one of our OCHA participants noted, such a system could allow for tiered access, making some information public and restricting other information to authorized users.

A closed system would likely be significantly better at performing those functions that may be crippled in an open context, such as sharing information that contradicts the official perspective of the local government. Even if government officials were able to access the system, keeping conflicting numbers out of the public domain could lower the stakes; the numbers would still affect the scope of the relief effort, but they would no longer have an effect on the government's public image. Depending on who is able to access the system, visibility may or may not continue to be an issue; if donors are allowed access, for example, NGOs may still push to be included, while in a system confined to the humanitarian community, the desire to be mentioned may be less acute. It is difficult to surmise the extent to which the tussles around the template would still occur, but in the context of the cluster sections it seems possible that one conflict would simply be traded for another. The burden of reporting for a cluster would remain the same, but the value placed on controlling the information would be lower if the reports were not public; so while conflicts for control over a particular cluster section would likely decrease, the diminished incentive might lead clusters to not share information at all. It is likely, however, that reduced requirements for clearing the sitrep would lead to

faster reporting times, and that the information reported would be less subject to suppression and distortion from political pressures, improving the ability of the document to inform critical decisions.

Closed systems on this model are used in the humanitarian space; one example mentioned several times in our interviews is OCHA's Virtual On-Site Operations Coordination Center. One participant described how operational information, which used to be the province of the OCHA sitrep, is increasingly shared in the Virtual OSOCC system instead: "Gradually the monopoly of the sitrep was lost… The sitrep became the official source about donation information, but maybe the working information was on the Virtual OSSOC" (P33, OCHA/HQ, notes). The same participant contrasted the "more informal" information on the Virtual OSOCC with the "official" information in the sitrep. This aligns with the analysis above – the controlled access system allows actors to share information with less concern for the political consequences, and the result is better support for operational data.

Unfortunately, this approach also misses many of the benefits of an open access system. Moving the OCHA sitrep behind closed doors might improve its operational utility, but it would also move an important body of humanitarian information out of the public domain. Sitrep recipients we spoke to emphasized the importance of being able to refer to an official, citable source in their own internal and public reports. One donor mentioned that in some cases, the public nature of the sitrep played a crucial role in their ability to allocate resources: "During the Kyrgyz earthquake, we had some reports from the field, but we couldn't respond

until the OCHA sitrep came out… The OCHA report offers the first publicly reportable information." (RT1, Donor/HQ, notes). Despite pressure to downplay controversial issues, the OCHA sitrep provides a measure of transparency for the humanitarian response, supporting accountability for humanitarian actors, donors, and the local government. Keeping the sitrep accessible means that it can be read by actors and decision makers who might not "make the list" of authenticated users, including small NGOs, corporations, and those countries and private sources our participants referred to as "non-traditional donors," all of whom may be able to help in the relief effort. In some contexts, the public sitrep may be a crucial way to counter distrust for humanitarian actors, as one sitrep writer described:

> "Communication with local actors is very important. It's read in [the country], it's important for them to see that the UN is doing something when they don't get other information or they don't see the UN where they are." (P62, OCHA/Field, notes)

In short, while restricting access to the sitrep might help alleviate many of the issues I have outlined and make it a stronger operational document, it would also do away with many of its most important non-operational functions – potentially including some for which the OCHA sitrep is the only provider. Although the closed system approach is undoubtedly the best option for a number of humanitarian uses – the prime example being those cases in which open information could jeopardize staff safety – there is a need for public access to humanitarian information. With this in mind, I turn to two approaches to addressing political conflict in open access systems.

As many of our interviewees pointed out, OCHA is in an awkward position. As a coordinating body, it sits between the major UN agencies, the NGOs, the donor community, and the local government, actors whose divergent perspectives and interests can be a steady source of tension and conflict. The issues I have described in the sitrep process are largely the result of attempts to find compromises in the document that will suit all parties: "We always think about 'Let's get a number that nobody will complain about'" (P52, OCHA/HQ, notes). One potential strategy for addressing this issue is to attempt to address it as little as possible, by pushing the conflicts outside of the system. As a design approach, it is related to the advice of Clark et al. (2005) to "[m]odularize the design along tussle boundaries" (467), separating out areas of potential controversy so as not to affect unrelated elements of the system.

The goal is to become what Currion refers to as the "honest broker," a neutral service that can "collate and disseminate information from all, for the use of all, with no agenda of [its] own" (Currion 2006, 39). Several of our participants referred to this function as that of a "clearinghouse." As it currently operates, OCHA's situation reporting process is not a neutral service; the writers who produce the documents and the managers who clear them make editorial choices, selecting updates, choosing the numbers that seem the most credible or the least politically controversial, mentioning some actors and leaving others out. The result is a document that is OCHA's responsibility and subject to all of the pressures and conflicts to which OCHA is subject.

There are a variety of ways, however, that OCHA could duck these editorial choices. The most obvious is simply to include whatever is submitted, and in some cases this seems in fact to be the current process; but the resulting document tends to be a lengthy morass of disconnected pieces of information that interviewees both inside and outside of OCHA were quick to deride. The new template, composed primarily of sections for each cluster, represents a more refined approach, delegating responsibility for these sections to the cluster leads themselves. In its current form, this delegation is not complete; OCHA may still add or edit information, and there is no indication that the cluster lead, rather than OCHA, is responsible.

Taking this strategy further, however, OCHA could cede these sections entirely, perhaps adding a disclaimer stating explicitly that the views expressed were those of the cluster lead alone. In addition to pushing accountability for submitted information onto the cluster lead, OCHA could also pass on accountability for *not* sharing, noting that a particular agency had "nothing to submit." At its logical conclusion, this approach might lead to a networked system in which each cluster could input information directly into the sitrep, with no need for an OCHA intermediary. A similar approach could be taken to the inclusion of controversial numbers; a table at the top of the page could display estimates from any source that chose to submit. While carefully avoiding editorial choices, OCHA could make strict policy choices instead, in order to keep the document from being overrun by uncontrolled content. For example, cluster sections could be limited in length, and estimates of affected population could only be posted by a pre-defined list of actors. These policies would need to be established before an emergency strikes, so as to avoid any hint of agenda when applying them in the heat of a crisis. In a networked

information system, many of these policies could be enforced by code, backing up design decisions with technical constraints to make them harder to change, even under political pressure.

Especially if it is clearly advertised to all actors, this approach could establish the OCHA sitrep as a manifestly neutral document. The information it contained would still be controversial, but OCHA would no longer be a party to the controversy; disputes over numbers, priorities, or biased information could occur directly between readers and information providers. In a sense, OCHA would have established plausible deniability of editorial responsibility.

OCHA has already adopted some elements of this approach. In many cases, OCHA participants noted that one route to increasing the credibility of the numbers in the sitrep was through rigorous sourcing of the information cited. Offering clarity and transparency about where the information comes from allows OCHA to pass the burden of credibility onto other agencies: "It's all about defensibility... defensibility runs to the source" (P52, OCHA/HQ, notes). Although the process of feeding cluster reports into the OCHA sitrep is still an ongoing discussion, the trend as the cluster approach gains traction is to give more control to cluster leads to specify the information in their respective sections. The benefit to OCHA is a higher level of neutrality; easier clearance, as the cluster information has been pre-cleared; and less responsibility for choosing a side in political disputes where no compromise can please all parties. Decision makers benefit from enhanced transparency of information sources, allowing better assessment of their

credibility, and the speed of a smoother clearance process; cluster leads gain more control over the way humanitarian relief is presented.

Especially in its extreme forms, however, this approach requires OCHA staff to relinquish control over the document, passing choices about how the emergency is presented to information providers with whom they may disagree. It also removes any role for OCHA staff to add value as editors or analysts, diminishing the value of the document. Participants overall insisted on the need for a concise overview (many participants specified a maximum length of two pages), including not just raw reports from other agencies but contextual analysis. As one participant put it, more than just collecting the information, recipients look to OCHA to answer the "so what" question – the "action that is required by me or my organization" (P39, OCHA/HQ, notes). This need requires editorial control, hard choices about what to include and leave out; as one donor put it bluntly, "I need a credible final product, with priorities, not just everybody's rubbish" (P54, Donor/HQ). Donors called for the sitrep to present what one interviewee called the "consensus of the humanitarian community," a holistic perspective of the situation; such a consensus is unlikely to emerge from the sitrep process if its elements are drawn directly from separate sources, without the conflict, debate, and compromise a coherent picture requires. The final approach I consider focuses on this problem.

THE SHARED SPACE

Participants offered mixed views on the question of consensus. One OCHA staff member suggested the sitrep's purpose was to help the humanitarian

community "establish a common understanding" about an emergency (P50, OCHA/HQ). A senior manager at a UN agency went further, suggesting that "OCHA should facilitate a real consensus on the real nature of the crisis… Sitreps are interpretive steps toward a final statement, a final consensus" (P76, Cluster/Field, notes). In general, however, participants rejected the idea that sitreps currently fulfilled this function. As one sitrep recipient pointed out, there is little or no support for consensus-building in the current reporting process:

> "Not sure you can say sitreps provide a consensus, because that would suggest there's been a process of agreement. No process of dispute resolution either, so if we say 'We don't agree with that sitrep,' then what would happen?" (P84, NGO/Field, notes)

If avoiding the tensions between conflicting interests requires pushing the tussle outside of the system, arriving at consensus may require embracing it. Though the sitrep provides a focal point for a number of conflicts and disagreements, these are generally played out behind the scenes, with little transparency for the reader, who is left to guess at the political concerns that shaped the document. One design strategy would be to position the sitrep as a shared space for these conflicts to play out in public. The model for this approach, at its extreme, is Wikipedia: an open access system allowing any user to add to, comment on, annotate, debate, and edit the text in question.

I do not propose that the OCHA sitrep should be open for all to edit; the stakes are too high. Wikipedia articles often jump from one extreme view to another; they are subject to vandalism and the insertion of blatant falsehoods; for controversial topics, it may take months for a relatively neutral compromise view to emerge, or no such consensus may be possible. Such flux is undesirable in the

context of the OCHA sitrep; as our participants mentioned, the ability to cite an official document is an important benefit, and this requires a static text. Unlike the general-interest content found on Wikipedia, humanitarian information and analysis requires both experience and access. While Wikipedia allows anonymous users to contribute edits, anonymity in the humanitarian space may be problematic, leaving readers with little ability to assess the credibility of the source.

Within these constraints, however, there is room for a system focused on engaging actors in the humanitarian community and promoting discussion and consensus around the OCHA sitrep. For example, the system might allow users to annotate and comment on the text of a posted OCHA sitrep, contesting disputed information and adding missing content, without actually altering the text. Access to participatory elements could be restricted to members of the humanitarian community, while leaving read-only access to the general public. Verifying the institutional affiliation of each user could add credibility to their comments, potentially even if they remain anonymous; readers might lend more credence to a comment from an anonymous or simply unfamiliar source if they knew that its author worked for the Red Cross movement (see Stephenson and Schnitzer 2005, 218, for the importance of organizational reputation in establishing credibility in relief efforts). Collaborative voting and filtering tools could be used to quickly identify content that was important, controversial, trustworthy, or otherwise worth reading; Turoff et al. (2009) have recently outlined the use of such systems for humanitarian response.

A design approach aimed at building consensus in an open forum has the potential to turn the key challenge of public access, pressure from competing interests, into a strength. Both sitrep writers and readers in our research noted the lack of feedback mechanisms in the current process; a consensus-based approach would make such a mechanism the central feature of the sitrep. It could also relieve some of the political pressure on OCHA, by providing a designated forum for competing interests to express their points of view. From this perspective, the shared space approach is another way of following Clark et al.'s principle of tussle modularization.

There are several obvious problems with this approach. First among them is the composition of the user base; even if the system was widely adopted, connectivity barriers at the field level may prevent those with the best available information from participating. These actors are also the least likely to have the time to engage in an ongoing debate, likely biasing the comments toward the interests of actors outside the field There is a danger that open systems of this sort would be overwhelmed by the few users with the most to say and the most time to say it, regardless of whether their information was accurate or unbiased. Perhaps most importantly, such participatory platforms seem to go against the heavily hierarchical culture of the UN system; as the Global Symposium report notes, "The bigger the organization and its bureaucracy, the harder it is to introduce and adapt to new technologies" (UN 2008, 17). Despite many calls in recent years for the adoption of "Web 2.0" technologies in the humanitarian community, such systems have seen little enthusiasm or adoption (see, e.g., Hattotuwa and Stauffacher 2009, 32, finding "inadequate awareness across all agencies" of Web 2.0 tools). Nonetheless, if the

humanitarian community truly values the principles of accessibility, inclusiveness, and reciprocity championed by the Global Symposium statement, an approach that encourages user participation and open debate is worthy of consideration. This is especially true if humanitarian information sharing is primarily the province of closed systems; the response to disasters is a public concern, and the debates that shape it should be public.

Conclusion

It is difficult to have a conversation longer than 10 minutes with someone working in the humanitarian sector without the suggestion that the problem under discussion brings up a bigger issue. International disaster response is a big-issue context, at times involving hundreds of independent organizations, each with their own interests and deeply held convictions about the response. Many of our participants have suggested that the challenges of the OCHA sitrep cannot be addressed without first addressing some bigger issue: failures of leadership, ambiguities in OCHA's mandate, the culture of the humanitarian community. As one interviewee argued, "You can't divorce the conversation about sitreps from the larger humanitarian action" (P23, OCHA/Field, notes).

The political tussle between humanitarian actors, international donors, and national governments is, beyond a doubt, a bigger issue. It is not one that will be "solved" by a well-designed information system, but neither is it one that system designers can afford to ignore. In my exploration of political pressures in the OCHA sitrep process and design directions to address them, I have tried to present

a perspective on humanitarian information systems that considers the conflicting interests of diverse actors as a central concern. I have argued that these conflicts can have a significant impact on the quality of the information provided by humanitarian reporting, and that this impact is markedly stronger in open access systems. I have tried to temper the rhetoric (evidenced in the Global Symposium +5 report) that humanitarian information must be made accessible to all actors, focusing instead on considering the trade-offs implicit in this principle. Some systems can support speed and accuracy; some systems can support openness and consensus. In the complex environment of humanitarian response, it is unlikely that many systems can do both. Larry Minear, discussing a similar trade-off in coordination approaches, suggests that "The solution is not to devise a middle solution but to choose one or the other and work to offset its inherent disadvantages" (quoted in Stephenson 2006, 45). The same rule may be suggested here. Systems designers, senior management, and policy makers need to choose which goals and principles they want a particular system to espouse, and recognize that this choice may require leaving other principles behind.

If, as John Holmes suggests in the quote that opens this paper, "information well used can save lives," it is worth noting as well that information poorly used can waste time, serve political agendas, misinform, and hinder the effective response to those in need. The design of the OCHA situation reporting process, and indeed that of any humanitarian information system, must consider both of these perspectives to succeed.

Appendix 1: The Humanitarian Context

Humanitarian emergencies generally fall into one of two categories: natural disasters, which are the product of earthquakes, floods, droughts, and other events beyond human control, and complex emergencies, characterized by "a total or considerable breakdown of authority resulting from civil conflict and/or foreign aggression" (Adinolfi et al. 2005). Disasters take the greatest toll in the poorest countries, where the health, security, and livelihoods of local communities are already fragile (de Ville de Goyet 2008, 23). In part because of this fact, a growing school of thought sees the distinction between natural and complex emergencies as a continuum, rather than a bright line, suggesting that vulnerability always has social and political dimensions: "[M]any disasters called 'natural' are in fact aggravated by poor planning, politically motivated neglect, and bad administration" (Knuth 1999, 16). Major disaster relief efforts thus often take place in a complex political environment, where humanitarian response may be entangled with governance issues, long-term development initiatives, chronic conflict, and the policy interests of foreign governments.

When large-scale disasters strike, the response effort involves a wide range of actors. In cases where the disaster exceeds the ability of the affected country to respond on its own, these actors may include a number of international organizations, including UN agencies, the Red Cross, international NGOs, and the international donor community. Although the major UN operational agencies, including the United Nations Development Program, the World Food Program,

and the World Health Organization, often play a major role, NGOs are also increasingly "a primary component of disaster response," with UN agencies and donor organizations now providing a majority of their relief assistance through direct funding to NGO projects (Coppola 2007, 387).

The roles and responsibilities of these actors vary from emergency to emergency and depend in part on the capacity of local institutions, the existing in-country resources of each agency, and the nature of the disaster. Although these actors all focus on the common goal of alleviating suffering and helping affected populations recover, each is, as Stephenson and Schnitzer put it, "at least quasi-autonomous":

> "The United Nations High Commissioner for Refugees (UNHCR), UN Office for the Coordination of Humanitarian Affairs, UN Children's Education Fund, World Health Organization, and World Food Program, among others, may all be involved in any given crisis. None, however, enjoys an authoritative role to oversee its peers. None can require that other participating units undertake specific actions." (Stephenson and Schnitzer 2006, 212)

The result is a highly decentralized system of agencies, each acting independently – a "jumble of loosely connected entities" that Stephenson likens to the chaotic croquet game in Alice's Adventures in Wonderland (Stephenson 2005, 340). In the largest emergencies, the sheer number of responding organizations can prove a major challenge; in the aftermath of the 2004 tsunami, accounts cited over 400 NGOs in Indonesia alone, with predictable problems for coordination (Völz 2005, 26).

In recent years, addressing the issue of coordination has become a major focus for humanitarian reform. Reform efforts over the past decade, stemming

from a "[g]rowing criticism of the inability of the UN humanitarian system to provide a timely, coherent, and effective response" (Hicks and Pappas 2006), have led to several major changes in the humanitarian landscape. One of the main pillars of this reform has been the advent of the cluster approach to coordination, which designates specific agencies as "global 'cluster leads'" for different areas of response activity (IASC 2006). Each cluster lead, usually one of the major UN agencies, is responsible for coordination and accountability among all agencies working in a particular sector, such as health, shelter, or water and sanitation. The system is still relatively recent, having seen its first implementation during the Pakistan/India earthquake in 2005, which represented "the first crisis where participating agencies, which continue to be separately funded and governed, find themselves involved under a single structure, in a single operation, having a single aim" (Hick and Pappas 2006, 43). Though the implementation of cluster approach has come in for some criticism (see, e.g., IRIN 2008), there appears to be widespread agreement that the system has the potential to strengthen coordination and improve humanitarian response.

The UN Office for the Coordination of Humanitarian Affairs has been one of the leaders in the humanitarian reform effort. Initially created in 1992 as the Department of Humanitarian Affairs, OCHA was renamed in 1998 and given a new mandate: to be the central focal point for the coordination of humanitarian response. As many commentators have noted, however, "OCHA does not enjoy command and control authority over the many UN entities often engaged in humanitarian relief, let alone over the other organizations involved in these emergencies" (Stephenson and Schnitzer 2006, citing previous research). Because it

has no direct control over the actions or funding sources of its many partners, OCHA has faced significant challenges enacting its mandate for coordination. Despite their shared goals, many humanitarian actors are fiercely independent, and some, like the International Committee of the Red Cross, refuse outright to "be coordinated by others" (IFRC 2005, 90). Though OCHA has played a key role in promoting and facilitating the cluster approach, the responsibility for intra-cluster coordination rests on the cluster leads, and inter-cluster coordination remains an elusive goal.

A number of authors in the academic literature (e.g. Holohan 2003, Stephenson 2006) have described the ad hoc coalition of humanitarian actors in an emergency as an example of a "temporary network organization," a group of actors tied together by "formal and informal linkages and networks" that cross organizational and hierarchical boundaries (Holohan 2003). In this conceptual model, relationships of hierarchical authority, such as those between senior management at the headquarters of a humanitarian organization and country office staff responding to a disaster, cede importance to the improvised relationships between staff working on common issues. As proponents of this concept note, this organizational structure often exists in tension with hierarchical "command and control" structures that obtain within and at times between different agencies (Dynes 1994, Holohan 2003, Harrald 2009). The cluster approach may be seen as an uneasy compromise between these two models, creating a hierarchical structure for coordination but leaving each organization a significant measure of autonomy – and leaving little authority in the hands of central coordination bodies.

Appendix 2: Global Symposium +5 Principles

The most explicit and widely accepted formulation of principles for humanitarian information sharing is that proposed by the participants in OCHA's 2002 Symposium on Best Practices in Humanitarian Information Management and Exchange (UN 2002) and refined five years later in the Final Report of the Global Symposium +5 (UN 2008), which brought together over 300 participants from throughout the humanitarian community. The statement endorsed by these participants outlined 13 principles for information sharing, listed in Table 2.

Global Symposium +5 Principles	Data Quality Dimensions (adapted from Nelson & Todd 2005, Scannapieco et al. 2005)
Accessibility (to all actors)	Accessibility
Inclusiveness (of multiple stakeholders, including governments and affected communities)	
Interoperability (of information formats)	Integration/Flexibility
Accountability (for information products)	
Verifiability (validity)	Consistency
Relevance (to operational needs)	
Impartiality (balancing multiple perspectives)	Objectivity
Humanity (respect for human dignity)	
Timeliness (efficiency)	Currency/Timeliness
Sustainability (preservation and archiving)	
Reliability (transparency of sources and methods)	Reliability
Reciprocity (of information exchange)	
Confidentiality (of personal data)	Security
	Accuracy
	Completeness

Table 2: Comparison of Global Symposium +5 principles and data quality dimensions

It is illuminating to compare and contrast this list with similar dimensions drawn from recent literature on data quality. Lee et al. (2002) offer an overview of academic and practitioner schemas for assessing information quality, and propose a model combining these concepts, which usefully divides the dimensions into those

which apply to the information product and those which apply to the service. Nelson and Todd (2005) offer a similar model, and also divide the dimensions, this time between those which measure the quality of the information and those which measure the quality of the system. Scannapieco et al. (2005) also present an overview of existing research in data quality. Many of the Global Symposium principles are addressed, often with the same terminology, in this literature; the exceptions are those particularly focused on the humanitarian context, such as Humanity and Inclusiveness, and those focused on the process of sharing, such as Reciprocity.

The information quality dimensions missing from the Global Symposium list, however, are striking. As all three of these articles indicate, and Scannapieco et al. note explicitly, a "core set, namely accuracy, completeness, time-related dimensions and consistency, is shared by most proposals for data quality dimensions in the research literature (12). Of these four, only Timeliness (one of Scannapieco et al.'s "time-related dimensions") and possibly Consistency appear in the Global Symposium principles; Accuracy and Completeness are conspicuously absent.

It is hard to tell whether these missing dimensions were deemed too obvious or too unattainable for the Global Symposium list, or whether their absence is the result of an explicit choice by Symposium participants to avoid the issue of data quality – though the latter option is undermined by the inclusion of a number of quality dimensions, including Timeliness, Verifiability, and Relevance. More likely the dimensions were omitted out of concern for their feasibility in emergency contexts. Accuracy is an elusive goal for most humanitarian reporting, especially for

data on the situation and needs; as many of our interviewees noted, numbers of affected people, for example, are often little more than rough estimates, and in many cases different sources will produce widely divergent figures. Completeness of emergency information is a similarly difficult goal, including both how much information known by other actors ever gets to the writer, how much known information the writer includes in a given information product, and the granularity of detail the sources and writer provide.

As Scannapieco et al. note, however, "data quality dimensions are not independent of each other"; the design of information products and systems involves the consideration of a number of trade-offs between different dimensions (10). Omitting two of the four key dimensions of data quality from the list of Global Symposium principles means avoiding the implications of how prioritizing the other principles may affect these considerations.

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