

## Modeling the Humanitarian System

The topics in the humanitarian sector are rather broad in nature, and solutions to many of the problems faced in this sector are dependent on the classification of the problem. If one were to begin to try to articulate a taxonomy of humanitarian problems, they would probably be best served by dividing these problems into those of the predictable/slow-onset variety, and those of the unpredictable variety. While the issues of resources, logistics, and supply chains are germane to both sets of problems, how they are dealt with within these two realms may differ drastically.

Under the slow on-set/predictable humanitarian causes one could argue for a further delineation between constant/continual issues with long time-horizons (i.e. poverty eradication, cancer research, education issues), and those issues which are slow on-set/predictable, but have a shorter time-horizon with respect to humanitarian commitment (i.e. famine/drought relief, certain disease relief). The intervention in these areas can be more thought out and better planned than that of unpredictable humanitarian problems, as the same urgency of the latter does not present itself within these issues.

Humanitarian issues of the unpredictable variety (i.e. Natural disasters, large-scale disease outbreaks, terrorist attacks, and to some extent externalities of war), are usually not unpredictable with respect to type, but usually unpredictable with respect to location. These events allow for planning in some respects, but will always elicit immediate reactionary responses from intervening organizations. The recent trend within the humanitarian sector has been to introduce better planning techniques as proposed by the OR community, in attempts to minimize the burden that unpredictability imposes on these organizations.

Precipitated by the urgency of the events, along with a constrained amount of donor funds, coordination of intervening organizations in these relief events has been as one practitioner remarks, “the soft underbelly of the humanitarian enterprise” (Minear, 2002, pg. 20). The work at Tennenbaum has been motivated out of a focus on the area of coordination among humanitarian relief organizations, and more specifically resource procurement and utilization within a dual objective framework of both fundraising and mission fulfillment. Motivating the considerations of competition, congestion, and resource utilization is the larger issue of how organizations, donors, and affected populations interact within this complex system.

At the most basic level, the research attempts to understand the role of information in the humanitarian space, and how it shapes the behavior of both donors and organizations. The research uses tools and models developed via game theory (signaling models, search models, and matching), statistics, and simulation to understand the interactions. There has been quite a bit of work within the economics literature that attempts to make sense of the fact that people give money away to humanitarian organizations, often times with nothing tangible in return. The work at Tennenbaum attempts to extend the work beyond the individual, and tries to understand how organizations position themselves to receive these funds, and more importantly how they do so within the framework of both

fundraising and organizational mission objectives. By positing a unifying model of relevant actors it becomes possible to understand why competition might exist among altruistic organizations, why certain causes receive high levels of funding and attention while others receive very little, how resources come to be wasted, and how transparency and trust effect both the donor pool and the organizations' decision-making process.

### **Cited Works**

Larry Minear. *The Humanitarian Enterprise: Dilemmas and Discoveries*. Kumarian Press, Inc., Bloomfield, CT, 2002.