

# Categorization of Volunteers and their Motivation in Catastrophic Events

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## Abstract

In catastrophic events, the potential of help has grown through new technologies. Voluntary help has many forms. Within this paper different categories of voluntary help are suggested. Those categories are based on properties like organizational structures, helping process, kind of prosocial behavior and many more. A focus is clearly on the organizational structure and motivational aspects of helper groups. Examples are given for each category. The categorization's aim is to give a brief overview of possible properties a group of system users could have.

## 1 Introduction

In major catastrophic events, like the German “century floods” in 2006 (Elbe) or 2010 (Oder), volunteers play an important role to cope with such situations. Their help is broadly spread: from defending dykes, offering food supplies, accommodation and vehicles to the donation of money or goods. Through social media and other communication platforms the potential of voluntary help has grown nowadays. This leads to the question what motivates people to their engagement (Geißler 2014). Before we examine the motivation of volunteers, we try to systematize the helpers in catastrophic events.

There are many different terms and categories for helper groups. Kirchner (2014) summarizes the helper groups by their organization form and their spatial and social affection to the catastrophic event into the following categories:

- I. Self-helpers and neighborhood helpers
  - Directly affected by the event
  - Coping with the event, with or without organizational forces
- II. Unbound helpers, ad-hoc helpers and spontaneous helpers
  - Active during or after the catastrophic event
  - From areas which are not directly affected by the catastrophic event

- Motivated by news and media
- Self-organized or committed to an organization
- III. Preregistered helpers and first responders
  - Have registered themselves before the catastrophic event
  - Have personal qualifications, but no special disaster control qualifications
  - Central coordination with connection to the professional organizations
- IV. Honorary office and full-time helpers in disaster management
  - Trained in tasks for disaster control

A commonly used working definition of unbound helpers can be found in (Deutsches Rotes Kreuz 2013). After having a first categorization of helpers, we take a closer look at the helping process itself. According to Bierhoff (2002), the term help can be distinguished into:

- I. Helping (includes II. and III.): broadcast term, all forms of interpersonal support
- II. Prosocial behavior (includes III.): narrower term, goal is to improve the situation of the help-recipient (person), actor is non-professional
- III. Altruism: prosocial behavior, motivation of taking others' perspective and empathy

From a technical point of view, it is desirable to find the motivational aspects of voluntary help within a certain target group to get a better understanding of system requirements which can ease the conceptual specification of the system. From an organizational perspective, it is desirable to bind the unbound helpers, for strategies for the integration of volunteers into crisis management see (Kalisch et al. 2014).

Later in this article, we compare the helper classes with the eight goals (motivational functions) from the scales of the attitude structure of volunteers (Bierhoff et al.), i.e. social attachment or career function. With this in mind, we concentrate on helper groups which fit into the definition of prosocial behavior (volunteers). This excludes self-help and (professional) full-time helpers. Bierhoff et al. (2007) addressed the honorary office with their motivational functions, which can be defined as, i.e. (Rauschenbach 1999): "[...] the idea of organized, free of charge work in one's own rows through identification with values and goals of the associated organization." Therefore, we cannot transfer their functional goals to all helper groups directly, because their organizational and/or motivational structure might be different.

## 2 Helper Groups

The cooperation of volunteer helpers can be organized in many different ways. In this section we will give a short theoretical overview and introduce some examples. These are the base for building the categories in section 3.

### 2.1 Organizational aspects

Some forms of volunteer work are spontaneous acts of single persons, but in many cases a kind of team work is required to solve larger tasks - an organization structure. A general

introduction about this topic can be found at (Harper 2015). The main distinction is between formal and informal structures. Formal structures consist of official explicit responsibilities and workflows, work split and authority to give directives. On the other side, in informal structures relations between people may shift over time. The availability of volunteers or resources may not be obvious at any time. But even in informal organizations some people might act as leaders, based on charisma or recognized competence for the topic. Formal organizations can guarantee continuity, possess resources incl. buildings, on the other hand informal organizations can act more flexible. Thus, professional organizations typically have a mixture of formal and informal elements.

A more specialized view on nonprofit organizations is given by Anheier (2014). The objective of nonprofit organizations is to serve the public interest and not to optimize the benefit of a small group. They rely on the participation of volunteers, motivated by non-monetary returns. Consequently, it is important to have a look on the motivation of the people which is also influenced by the organizational structure. But it is directly obvious that there is no simple answer, as volunteer fire fighters have a highly formalized organizational structure, while other groups are build and organized only temporarily in a more anarchistic way, e.g. for a single task or spontaneous emergency situation. Important factors are the complexity of interactions and the coupling of organizational units. Loose coupling with complex interactions are an indicator for decentralization while linear interactions and tight coupling should have a centralized organization. The organization form also has strong influences on efficiency and permanence. A decision between task or people orientation, hierarchical or network-oriented decision structures may address and motivate different people as volunteers.

The influence of gender, age and race were analyzed as well as social aspects and motivation of volunteers in the US (Wilson & Musick 1997; Wilson 2000). Wilson also distinguishes between reactive and proactive aspects. The reactive spontaneous help given to a victim of an assault requires quick decisions, which action to take and is not organized, sometimes chaotic. On the other hand, volunteering is proactive, more formalized and most people spend some time and maybe resources independently to a current event.

## 2.2 Examples

The lowest degree of organization – no organization – is spontaneous help, which will not be discussed in this section. On the other end of the scale of formal structure are organizations like the voluntary fire brigade<sup>1</sup> or the THW (“Technisches Hilfswerk”, Federal Agency for Technical Relief)<sup>2</sup> with long-term membership and required trainings to participate in an operation and are official (some state-driven) services to ensure public safety. A traditional, more hybrid in terms of formalization are organizations like the red cross<sup>3</sup>. While

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<sup>1</sup> <http://www.feuerwehrverband.de/>

<sup>2</sup> [https://www.thw.de/EN/Homepage/homepage\\_node.html](https://www.thw.de/EN/Homepage/homepage_node.html)

<sup>3</sup> <https://www.drk.de/en/>

departments related to regular disaster management are integrated in formal processes, other departments (e.g. some tasks in welfare work) rely on less formally organized structures with mainly volunteers. The volunteer persons are an additional human resource in some emergency situations to support the more professional working members.

Beyond these traditional organizations projects using modern IT-infrastructure – especially social networks (Reuter, Ludwig & Pipek 2014) – and acting more dynamically arose in the last years. During the floods 2013 in Germany different social media portals like Facebook and Twitter were extensively used (Kaufhold & Reuter 2013). Some for a specific reason, some for specific target groups (e.g. helping moms), some fully self-organized, some in contact with local emergency services. Popular examples for social network volunteer groups are “Rain in Muenster” (“Regen in Münster, 2014<sup>4</sup>) and “Essen tackles it” (“Essen packt an”, 2014<sup>5</sup>). Kaufhold and Reuter (2016) analyze the benefits and challenges as well as different roles the helpers took over. With the flood 2013 in mind the “Hands2Help” (Hofmann et al. 2014) project was created, which aims to bring professional forces and auxiliary field help together. The coordination is performed over a centralized server, where organizations can enter their demands. Registered volunteers are alarmed over a smartphone app. For a more extensive overview see (Reuter et al. 2015) and (Reuter et al. 2013).

The former projects do not focus on a long-term relation between organizations and helpers. This is different in the following projects.

The project “United Hatzalah” supports medical teams in lifesaving operations (Friedson 2012). Through the use of smartphones with GPS technology, emergencies are passed to a nearby helper by the system. Over the last years, several small control centers that are coordinating the volunteers and resources were built up. The German project “Mobile Saviors” (“Mobile Retter”) is also concerned with the support of medical rescue services by volunteers (Stroop et al. 2015). Once the system receives an emergency call, a previously registered and nearby helper can be contacted via a mobile app. Within the AHA project (Detjen et al. 2015) volunteers are also alarmed over their smartphones. The volunteers are preregistered to the system and have a validated profile of skills and resources. The integration of the volunteers into an operation is coordinated over the regular official control room, therefore the software of the control system is extended with an AHA component. Fields of applications are not limited to medical help.

### 3 Classification of volunteers

Based on the presented possibilities for social engagement in chapter 2 we propose four different categories of helpers (cf. Table 1).

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<sup>4</sup> <http://www.regen-in-muenster.de/>

<sup>5</sup> <http://www.essenpacktan.ruhr/index.php/ueber-uns/>

Volunteer Category	<i>I. (Unbound) Local Helper</i>	<i>II. (Unbound) Social Network Helper</i>	<i>III. Partially-bound Helper</i>	<i>IV. Bound Helper</i>
Administrative Autonomy	Unbound Helpers	Unbound Helpers	Partially-bound Helpers	Bound Helpers (honorary office)
Coordination	Self-coordinated	Self-coordinated / Instructed	Instructed	Instructed
Organization Form: Example	Neighborhood help	Rain in Muenster, Hands2Help	United Hatzalah, Mobile Saviors, AHA	THW, German Red Cross, VFD
Activity	Reactive	Reactive	Proactive	Proactive
Prosocial Behavior	Spontaneous	→		Sustainable
Helping Process Dimensions	→ Long-Term, Continuous, Plannable, Effort, Professionalism, Formal			
Helper Property Dimensions	→ Awareness, Commitment, Experience, Professionalism			
Bierhoff, Schülken & Hoof – SEEH: Potential to fulfill Scale: 0 = no potential, + = potential, ++ = high potential				
Social Responsibility	++	++	++	++
Political Responsibil.	0	+	0	++
Self-experience	+	++	++	++
Social Attachment	0	++	+	++
Self-esteem	++	++	++	++
Social Influence	++	++	++	++
Career	0	+	+	++
Professional Balance	0	+	0	++

Table 1: Volunteer Categories

These categories not only differ in the characteristics of their administration, the helping process and the helper itself, but also in the form of prosocial behavior, the fulfilled functions of volunteer's motivation and the point in time from which they become active in relation to the occurrence of the catastrophic event. While volunteers of categories IV, III and partially II are active through planning and training even before an event, helpers of category I only start acting if the event already occurred. This category includes people who act spontaneously during an event and have no kind of administrative who coordinates them. An example for this category could be a neighbor who helps out, maybe with equipment to pump out the cellar after a flood or just by helping cleaning up the streets or the garden after a storm. These volunteers help on their own and do not or just on a small degree organize

themselves in groups. After the event, the group falls apart. Even if it is possible that the same people meet up again at the next event.

If the group does not fall apart and creates some kind of network, e.g. a neighborhood group with a list for a phone chain or a group on Facebook or Whatsapp, the volunteers begin to belong in category II. In such a group it is assumable that one or a handful of people take over the part of the group-coordinator and start managing the group on the social networks, distribute information or in the neighborhood, caring that the groups comes together again at next events or distributing the group resources on different locations during events. The role patterns within social media based groups have been analyzed in (Reuter, Heger & Pipek 2013). Depending on the activity of such a group they cannot only be more organized than helpers of category I, but can also build social bonds, learn from each other and train social skill such as the coordination of groups. To enter a group in a social network or to write your phone number on a list for a phone chain is a decision which can be made easily and fast, because one does not have to fulfill any conditions besides being willing to help.

In contrast to this, in a system such as Mobile Saviors or AHA one has to lodge certificates for e.g. first aid trainings or participate at special trainings to register. Furthermore, there is a commitment towards public authorities by registering in those systems. Because a decision connected with such a responsibility is usually made consciously and more reasoned and because of the different administrative hierarchies in those systems, we decided to separate these volunteers into the third category. In this category the volunteers do not have fixed dates for trainings or duties like for example members of the Federal Agency of Technical Relief or the volunteer fire department (VFD). Besides their participation on courses for medical education, helpers of category III only get active if they are alarmed by the control center and send to place of action. In the fourth category, we placed volunteers of organizations such as Federal Agency of Technical Relief, VFD or German Red Cross. The volunteers of this category do not only have higher activity expenditure, but also could be send to more serious incidents because of their professional training within the organizations. For this reason, the helping process dimensions, like professionalism or formal structures, and helper property dimensions, i.e. commitment or experience, are increasing from I to IV.

Additionally, we tried to map the eight functions of the functional approach for motivations of volunteers (SEEH) by (Bierhoff et al. 2007) to the four categories. We do not doubt that it is possible to fulfill every function within each category, but we think it is more likely that volunteers of different categories have different potentials to fulfill certain functions. Here, it is important to understand that fulfilling more functions, does not mean that the motivation to help is higher. There are simply more motives a helper could have. We discussed different examples for every category and judged whether the functions can be basically fulfilled within the category without further engagement. Since the functions of voluntary work were determined by questioning members of different nonprofit-organizations and honorary offices, we assume that helpers of category IV have the best options to fulfill every function, even if it depends on the organization they are part of.

The functions social responsibility, self-esteem and social influence can be fulfilled by the prosocial activity itself. Because of this, these functions are fulfilled in every category. Functions such as professional balance, self-experience and social attachment are more

connected to the amount of time invested and the recurrence of the activity. Fulfilling these functions is much easier if you are part of a group which is connected by a social network or neighborhood as shown in the examples of category II. Although the current systems for volunteers of category III can fulfill the function self-experience, they are still not suitable to build up proper social attachment and thus do not fulfill the function professional balance. The function career describes the benefits you have for your career through the skills learned and the connections made. Therefore, it is unlikely to fulfill this function in category I, while II and III could have this potential - depending on the social and educational activities. Helpers of category I and user of the systems of category III are not related to any political issues and thus these categories cannot fulfill this function. For category II again it depends on the orientation and goals the groups set itself.

## 4 Discussion

The suggested helper categories show that there are differences in volunteer's properties. Categorizing the users of a i.e. crisis app, can sensitize developers for those and thus consider them while planning the system. The properties and characteristics can help to create personas during the design research phase of a project. Particularly the categories motivational functions can be used to derive a communication concept or system functionality (technical/non-technical). But so far, the categories are not fully objective. A next step could be to apply the SEEH questionnaire within selected helper groups of the four categories and measure if our suggestions prove true.

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