BUILDING COMMUNITY RESILIENCE THROUGH INFORMAL EMERGENCY VOLUNTEERING

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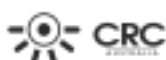**Wellington, 2 September 2014**

Joshua Whittaker[1,2], John Handmer[1,2] and Blythe McLennan[1,2]
[1]RMIT University
[2]Bushfire and Natural Hazards CRC

Corresponding author: joshua.whittaker@rmit.edu.au

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INTRODUCTION

Members of the public are usually first on the scene in an emergency or disaster and remain long after official services have ceased. Research has shown that citizens play important roles in emergency management by helping those who are affected to respond and recover and by assisting emergency services. Such citizen participation is a key principle of disaster risk reduction and resilience building, as outlined in Australia's *National Strategy for Disaster Resilience* (Commonwealth of Australia, 2011; see also UNISDR, 2007). In most developed countries, however, formal emergency and disaster management systems rely largely on a workforce of professionals and, to varying degrees, volunteers affiliated with official agencies. Citizens who work outside of the formal system have often been viewed as a nuisance or liability, and their work is typically undervalued. However, given increasing disaster risk worldwide due to population growth, urban development and climate change (Field et al., 2012), it is likely that these 'informal' volunteers will provide much of the additional surge capacity required to respond to more frequent emergencies and disasters in the future.

This paper considers different types of informal volunteers and their contributions to emergency and disaster management. 'Informal volunteer' is defined in the context of emergencies and disasters, before literature on citizen responses to emergencies and disasters is reviewed. We examine some of the implications of informal volunteerism for emergency and disaster management, including challenges associated with organisational culture and legal liability. We argue that more adaptive and inclusive models of emergency and disaster management are needed to harness the capacities and resilience that exist within and across communities.

DEFINING INFORMAL VOLUNTEERISM

Volunteering has been defined as 'any activity in which time is given freely to benefit another person, group or organization' (Wilson, 2000, 215). The term is generally used to refer to activities that are non-obligatory (i.e. undertaken without obligation or coercion); undertaken for the benefit of others, society as whole, or an organisation; unpaid; and undertaken in an organised context (Dekker and Halman, 2003; Snyder and Omoto, 2008).

Emergency management agencies tend to adopt more formal, operational definitions of volunteerism. For example, the US Federal Emergency Management Agency (FEMA, 2014) defines a volunteer in the context of the National Incident Management System as: any individual accepted to perform services by the lead agency (which has authority to accept volunteer services) when the individual performs services without promise, expectation, or receipt of compensation for services performed'. In Australia, Emergency Management Australia (EMA, 1998, 114) defines a 'volunteer emergency worker' as someone who 'engages in emergency activity at the request (either directly or indirectly) or with the express or implied consent of the Chief Executive (however designated), or of a person acting with the authority of the Chief Executive of an agency to which either the State emergency response or recovery plan applies'. These definitions place the volunteer firmly within the official emergency management system, with volunteers acting in accordance with the legislation, policies and procedures of the organisations with which they are affiliated. Training and accreditation is often a key requirement of such 'official' volunteering (Britton, 1991).

Although most agencies retain these formal, operational definitions, the participation of 'unofficial', 'unaffiliated', 'informal' and 'spontaneous' volunteers in emergency management is also widely recognised.

For example, the Australian Government's (2010, 5) *Spontaneous Volunteer Management Resource Kit* defines spontaneous volunteers as 'individuals or groups of people who seek or are invited to contribute their assistance during and/or after an event, and who are unaffiliated with any part of the existing official emergency management response and recovery system and may or may not have relevant training, skills or experience'. Similarly, FEMA (2013) distinguishes between affiliated and unaffiliated volunteers, with the latter defined as 'individuals who offer to help or self-deploy to assist in emergency situations without fully coordinating their activities'. FEMA notes that although unaffiliated volunteers can be a significant resource, the lack of pre-established relationships with emergency management agencies can make it difficult to verify their training or credentials and match their skills to appropriate service areas – highlighting that even though the volunteers are informal, they are seen as constituting an agency responsibility.

Essentially, in the context of emergency and disaster management, an 'informal volunteer' is anyone who freely helps those affected by emergencies or disasters by working – at least initially – outside of the established, official emergency management system. This broad definition includes a potentially wide range of volunteer types and activities. However, formal, operational definitions tend to overlook this spectrum, instead conflating the different types of informal volunteers and volunteer groups that may exist under one label. This has implications for the way these volunteers might be integrated with official response and recovery systems. For example, not all volunteers falling within the Australian definition of 'spontaneous volunteers' are necessarily unplanned or impulsive as this label implies. Similarly, even when volunteers are not affiliated with official response and recovery agencies, they may still volunteer in coordinated ways, for example, through their affiliations with other community and interest groups. Thus, a more accurate picture of the range of 'informal volunteers' and their potential contributions is needed in emergency and disaster management.

INFORMAL VOLUNTEERS: ROLES AND TYPES

The important roles played by citizens in emergency and disaster management is widely documented in disaster research. Research challenges the popular perception that disasters unleash chaos and disorganisation, with citizens rendered passive victims, panic-stricken or engaging in antisocial behaviours such as looting. Instead, individuals and groups have generally been found to become more cohesive than in 'normal' times, working together to help those who are affected and to overcome disaster-induced challenges (e.g. Fritz and Mathewson, 1957; Stallings and Quarantelli, 1985; Helsoot and Ruitenberg, 2004; Scanlon *et al.*, 2014).

Early disaster studies examined the phenomenon of 'convergence', involving the informal movement of people, messages and equipment into the affected area. An early study by Fritz and Mathewson (1957) noted that contrary to popular images of chaos and disorganisation, survivors tend to be more passive and cooperative than those who converge on the disaster scene from outside. While most citizens are well intentioned, convergence can create problems and challenges for emergency managers. Auf der Heide (2003) notes that hospitals and other emergency response organisations are often inundated by requests for information and offers of donations. Unsolicited donations may be inappropriate or unnecessary, requiring the expenditure of valuable resources to manage or dispose of them (Holguin-Veras *et al.*, 2012). This can impede the work of emergency services, particularly when transportation and communications infrastructure are overloaded. However, as Auf der Heide stresses, convergence is not always detrimental and 'local authorities need to recognize that unsolicited volunteers will show up, and procedures must be developed for processing these volunteers and integrating them into the response' (2003, 465).

Early studies of collective behaviour during crises led to the development of a fourfold typology of organised disaster response (Quarantelli 1966; Dynes, 1970) (Table 1).

Table 1: The DRC typology of organised response to disasters (Dynes, 1970)

		TASKS	
		Regular	Non-regular
STRUCTURE	Old	TYPE I: ESTABLISHED	TYPE III: EXTENDING
	New	TYPE II: EXPANDING	TYPE IV: EMERGENT

The typology identifies four types of organisation based on a classification of tasks (regular and non-regular) and structure (old and new):

- *Type I – Established organisations* involve routine tasks performed through existing structures (e.g. firefighting performed by a state fire agency).
- *Type II – Expanding* organisations undertake regular tasks through new structures (e.g. by recruiting new volunteers). These are typically volunteer associations or groups whose core activities are not emergency-related, but have latent emergency functions (e.g. Salvation Army).
- *Type III – Extending organisations* have established structures but take on new and unexpected functions during the emergency period (e.g. a netball club that uses its members to deliver food and clothing to survivors).
- *Type IV – Emergent organisations* are groups with new structures and new tasks. They emerge when needs are not being met, or are perceived to be unmet, by other organisations. These groups may become involved in a range of activities, such as initial search and rescue, operations such as collecting and distributing food and clothes to survivors, and coordination activities such as citizen committees that resolve disputes and advocate for resolution of community problems (Stallings and Quarantelli 1985).

Extending (Type III) and Emergent (Type IV) groups can pose significant challenges for emergency managers as they do not come under the latter's control and may not see the 'bigger picture' (Dynes, 1970).

This typology highlights that citizens can participate informally in emergency and disaster management in a number of ways. Participation may be anticipated or spontaneous, involve individuals or groups, and may be short to long-term. Informal volunteers therefore include volunteers with 'Extending' groups and organisations that take on new emergency or disaster-related tasks (e.g. a sporting club), and 'Emergent' groups and organisations that form to meet a need that is (or is perceived to be) not being met (e.g. a search and rescue party). Another type of informal volunteerism has grown recently with the expansion of social media and web-based mapping software: known generally as digital volunteerism. We consider the potential roles of these three types in turn below.

SPONTANEOUS/EMERGENT VOLUNTEERISM

Spontaneous volunteers are 'those who seek to contribute on impulse – people who offer assistance following a disaster and who are not previously affiliated with recognised volunteer agencies and may or may not have relevant training, skills or experience' (Cottrell, 2010, 3). Their proximity to the emergency or disaster site means they often play critical roles in first response. For example, many earthquake victims are rescued by uninjured, fellow citizens. In the 1980 Irpinia earthquake in Southern Italy, 90 percent of survivors were rescued by fellow citizens. In the 1976 Tangshan earthquake in China as many as 300,000 people crawled out of the debris, with many going on to form rescue teams that saved 80 percent of those buried under the debris (Noji, 1997). Other examples of spontaneous volunteerism include youths who performed search and rescue operations following the 1985 Mexico City earthquake (Castanos and Lomnitz, 2012) and the one million volunteers from Japan and abroad who came forward in response to the 1995 Kobe earthquake (Shaw and Goda, 2004). Recent groups include the Christchurch "Student Volunteer Army", and the "Mud army" that emerged after the 2011 Queensland floods.

A key benefit of spontaneous volunteers is their ability to improvise. As discussed earlier, emergent behaviours and groups are more likely to emerge when a specific need of the affected are not being met by formal response organisations. This is not necessarily a failure of the established organisations however, as – particularly for large and unpredictable events – no organisation is able to foresee or meet all the needs of the people affected (Stallings and Quarantelli 1985). Spontaneous volunteers are likely to have a 'real time', 'on-the-ground' view of the problem and can rapidly configure themselves and their responses to meet specific local needs. Unlike emergency services and other formal response organisations, they are rarely constrained by pre-established rules, strategies and technologies that may inhibit effective local response (Fernandez *et al.*, 2006). However, while they can be more innovative and responsive to local needs than formal responders, they are often unaware of the 'bigger picture' and hence can overlook important flow-on impacts of their activities.

According to Fernandez *et al.* (2006) there are two main risks associated with spontaneous volunteers. The first risk involves the failure of emergency managers to effectively utilise volunteers, which creates potential for loss of life, injury and property damage, as well as poor public perception of emergency/disaster response. The second risk is associated with the actions of untrained, uncoordinated volunteers, who may disrupt organised response and reduce the resources available to those who are affected. Examples include the actions of spontaneous volunteers causing traffic jams that prevent emergency services from reaching affected areas, untrained volunteers becoming overwhelmed by their experiences and adding to the work of emergency and other services, and serious injury and death of volunteers (Helsloot and Ruitenberg, 2004; Sauer et al. 2014).

EXTENDING VOLUNTEERISM

Existing groups and organisations within communities often extend their activities to volunteer in times of crisis, and may include local chambers of commerce, sports clubs, religious groups or service organisations. These volunteers often have a good understanding of local problems and needs and can draw on existing networks, skills and resources to meet them. In Australia, volunteers from organisations such as the Country Women's Association and Rotary International often play an important role in relief and recovery by collecting and distributing donated food, clothes and other domestic goods. Following the Black Saturday bushfires in Victoria, for example, dozens of Four Wheel Drive clubs from across Victoria banded together to deliver caravans to families who lost homes; helped clear debris and damaged trees; re-fenced

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farm properties; and delivered supplies to volunteer fire brigades (see also Wositzky, 1998; Apan et al. 2010; and Whittaker et al. 2012 for other Australian examples); . Businesses and corporation are also increasingly involved in emergency and disaster volunteering as part of their corporate social responsibility (CSR) programs (Twigg, 2001; Chong, 2009).

DIGITAL VOLUNTEERISM

Widespread use of social media and the accessibility of free, web-based mapping software have allowed citizens to freely produce and disseminate their own emergency-related information, and to coordinate their activities. This applies to people directly affected by disaster as well as to those who wish to help – either on site or from far away. Examples of social media applications range from use of sites like Facebook to share information (www.facebook.com/tassiefireswecanhelp), through to more complex uses involving data mining and crisis mapping (Meier, 2013). In March 2014, for example, 2.3 million people around the world joined the search for missing Malaysian Airlines flight MH370 by scanning more than 24,000 square kilometres of satellite imagery uploaded to the Tomnod website (Fishwick, 2014).

The strength of 'volunteered geographic information' (VGI) lies in the notion that information obtained from a group of many observers is likely to be more accurate than that obtained from a single observer. Goodchild and Glennon (2010, 235) note that despite concerns about the quality of data produced by non-experts free of institutional and legal frameworks, 'the quality of VGI can approach and even exceed that of authoritative sources'. The rich, contextual information that observers 'on-the-ground' can provide, and the speed with which it can be updated, are key advantages. Nevertheless, there are a number of challenges associated with use of VGI in emergency management (Poser and Dansch, 2010). It cannot be known beforehand how much information will be volunteered and where it will come from. As such, it should be treated only as a supplementary source of information when possible. Nor can the quality of data be guaranteed, with the potential for citizens to intentionally or unintentionally contribute erroneous information. There is a possibility that citizens may also be biased toward exceptionally large or severe events, meaning that smaller events go unreported.

Digital volunteerism is likely to become increasingly prevalent in emergency and disaster management in Australia and abroad. A key strength of the crowdsourcing approach is that volunteers do not necessarily have to invest long periods of time in order to participate, nor do they need to be near the emergency or disaster affected area. They can be anywhere in the world.

DISCUSSION AND CONCLUSION

This paper has examined some of the ways citizens participate in emergency and disaster management by informally volunteering their time, knowledge, skills and resources to help others in times of crisis. Research suggests that citizen convergence on emergency and disaster sites is inevitable, so emergency services and other organisations must plan for and manage the participation of these volunteers. As noted earlier, this is necessary to reduce the risk that untrained and uncoordinated volunteers will disrupt organised response and reduce the resources available to those who are affected. However, it is also necessary to maximise the effectiveness of emergency and disaster management by drawing on the immense knowledge, skills, resources and enthusiasm of ordinary citizens.

Informal volunteering is also an important vehicle for building community resilience to disasters. The Australian *National Strategy for Disaster Resilience* (Commonwealth of Australia, 2011, v) recognises that:

Non-government and community organisations are at the forefront of strengthening disaster resilience in Australia. It is to them that Australians often turn for support or advice and the dedicated work of these agencies and organisations is critical to helping communities to cope with, and recover from, a disaster. Australian governments will continue to partner with these agencies and organisations to spread the disaster resilience message and to find practical ways to strengthen disaster resilience in the communities they serve.

Other documents explicitly recognise the potential for informal volunteerism to contribute to disaster resilience. The *Victorian Emergency Management Reform White Paper* (Victorian Government, 2012) acknowledges the important role played by spontaneous volunteers and commits the government to work with local government, volunteer organisations and agencies to develop strategies for managing spontaneous volunteers during relief and recovery efforts. A key document guiding the management of volunteers by State and local governments is the *Spontaneous Volunteer Management Resource Kit* developed by the Australian Red Cross and the Department of Families, Housing, Community Services and Indigenous Affairs (Commonwealth of Australia, 2010). It draws a distinction between 'potential' and actual spontaneous volunteers, suggesting that 'people do not become spontaneous volunteers until they have undergone the relevant induction/checks for the role they will be undertaking. Until they do, therefore, they are *potential* spontaneous volunteers' (Commonwealth of Australia, 2010, 5). A number of agencies and volunteer associations have developed registers to enable people to indicate their willingness to volunteer in emergencies and disasters (eg. (http://emergencyvolunteering.force.com/Register). However these initiatives may not capture less formal types of volunteer and volunteering. Consideration of the activities and implications of digital volunteerism also appears limited.

Despite increasing recognition of the benefits and inevitably of citizen participation, there appear to be two main barriers to greater integration of informal volunteers into emergency and disaster management arrangements. The first barrier relates to the culture of emergency management and of emergency management organisations. In most developed countries, emergency management is based on bureaucratic, command-and-control approaches (Quarantelli, 1987; Neal and Phillips, 1985). Although these approaches are evolving, they still tend to assume that citizens are recipients of help rather than participants in emergency management (Drabek and McEntire, 2003). An alternative approach, argued for by Quarantelli (1988, 381), involves 'loosening rather than tightening to the command structure'. Emergencies are viewed as problems that must be solved within the affected community as much as possible (Dynes, 1994). This is the basis of a more flexible 'problem-solving' approach that draws on the knowledge, skills and resources that exist within and across communities. Elements of both approaches are necessary; however, it is likely that achieving greater flexibility and involving citizens will require cultural and organisational change for many emergency management organisations.

The second main barrier to greater involvement of informal volunteers in emergency management is concern about safety and legal liability. Sauer et al. (2014) note that despite the 'universal presence' of spontaneous volunteers following disasters, few studies have considered issues related to safety and liability. Their study of voluntary organisations active in disasters found that most had encountered spontaneous volunteers during their response activities, yet the majority did not perform background checks on volunteers and only half provided training. Two of the organisations in their study had reported a spontaneous volunteer death, while eight had reported injuries. Although one organisation had been sued

by a volunteer and three had been sued due to the actions of a volunteer, most did not believe they were liable for spontaneous volunteers' actions (Sauer et al. 2014).

While further research into legal liability is needed, the risks associated with informal volunteerism can be minimised. One option is to ensure that volunteers are registered, trained, briefed, credentialed, assigned appropriate tasks, and supervised where possible (Sauer *et al.*, 2014). This is already happening in Australia through the programs and registers of a number of State emergency services and volunteer associations. However, the research reviewed in this paper highlights that many citizens will volunteer in less formal, emergent ways during emergencies and disasters. It is therefore important that emergency managers are attuned to what is happening on the ground and are prepared to engage with a diverse range of informal volunteers.

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