

# The Characteristics of Disaster Volunteerism in a Digital Age: Implications for Emergency Management Practice



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# Session Overview

1. Types of emergency management volunteers and characteristics of convergent volunteer behaviour
2. Types of organized response to disasters and association of volunteers with these types
3. Planning assumptions regarding the interface between volunteers and organized response to disasters
4. Social media influence on volunteer participation in disaster response and recovery

# Collective response to disasters



Natural hazard related disasters viewed as “acts of God.”

Disasters were mostly dealt with locally.

Response and recovery was done by the affected populations, helped by family, community, church, and sometimes local civic organizations.



Government was only marginally involved.  
No expectation of federal disaster assistance.

*View of University of Minnesota*

# Formalized organized response to disasters





# Formal organized response:

Domain>Tasks>Resources>Activities



# Collective behaviour:

Activities>Resources>Tasks>Domain

Kreps, K. & Bosworth, S. (2006). Chapter 17: Organizational adaptation to disaster. In Rodriguez, H., Quarantelli, E.L. & Dynes, R. (Eds), [\*Handbook of disaster research\*](#) (pp. 297-315). New York: Springer.

# DRC Typology of Organized Responses

Tasks: Regular

<b>Type 1: Established</b>	<b>Type 2: Expanding</b>
Type 3: Extending	Type 4: Emergent

Structure:  
old

Structure:  
new

Tasks: Non-regular

# Types of Volunteers



WEATHER WATCHERS

## Specially trained volunteers act as Environment Canada's eyes and ears for Southwestern Ontario



By Jennifer O'Brien, The London Free Press  
Friday, May 2, 2014 7:43:33 EDT PM



Image: 5 of 7



**Formal organized response:**  
Affiliated volunteers



# Types of Volunteers



**Collective behaviour:**  
Unaffiliated volunteers  
Convergent volunteers  
Spontaneous volunteers

# DRC Typology of Organized Responses

Tasks: Regular

Affiliated  
volunteers

**Type 1:  
Established**

**Type 2:  
Expanding**

Affiliated  
volunteers

Structure:  
old

Type 3:  
Extending

Type 4:  
Emergent

Structure:  
new

Unaffiliated  
volunteers

Tasks: Non-regular

Unaffiliated  
volunteers



# Characteristics of Emergent Response

- *Emergent groups*: spontaneous organization of people to address hazard and response generated needs (e.g., crisis café)
- *Emergent structures*: new structures, new division of labour, new networks (e.g., unmet needs committee)
- *Emergent norms*: new behaviours and new ways of doing things (e.g., sheltering options)

# 1987 Edmonton Tornado



Retrieved from: <http://www.edmontonsun.com/2012/07/31/remembering-black-friday-in-edmonton>

# Search & Rescue



**Formal organized response:**  
Type 1 - First responder agencies



**Collective emergent behaviour:**  
Type 4 - Unaffiliated volunteers



# Registration and Inquiry



**Formal organized response:**  
Type 2 – Red Cross affiliated volunteers

**Collective emergent behaviour:**  
Type 4 - Unaffiliated volunteers

# Clean Up & Debris Management



**Formal organized response:**

Type 1 & 3 - Need for specialized resources

**Collective behaviour:**

Type 4 - Unaffiliated volunteers



# Relief & Recovery Assistance

- Government assistance
- Private Insurance
- Red Cross
- Salvation Army
- Mennonite Disaster Services

## Formal organized response:

Type 1 - Government assistance

Type 2- Voluntary sector assistance

*Relief Services looks for disaster*

By KATHLEEN ENGMAN  
Journal Staff Writer

Disasters don't strike on a nine-to-five basis.

And Edmonton's Emergency Relief Services Society doesn't operate on bankers' hours either.

When a call comes in, it's: "In the truck we go — not should we do it?" said Cindi Hache of the volunteers who help victims of fires, floods, tornadoes, and simple hard times.

Hache, society assistant director, said she and fellow volunteers don't wait for disaster to strike, or victims to come to them.

One December, Heather Airth and Carol Smith, two other society executives, noticed downtown core-area women braving the cold without warm winter coats.

The society warehouse had an excess of new winter coats left over from donations for tornado victims. So Smith and Airth drove to Boyle Street and handed out coats to the shivering women, said Hache.

The society now operates out of a donated warehouse in the old public works building at 104th Street and 102rd Avenue.

It started in October 1986 when a housefire struck a neighbor of Smith, Airth and Kathy Prudhan, another volunteer.

The women and Smith's husband, Dave, collected furniture and clothing donations to help their neighbors get back on their feet.

When another family had a fire just days later, people automatically brought donations to them.

"There was furniture from one end of their houses to the other," said Hache.

They decided the following March to make their group a society, and found donated warehouse space for furniture and clothes.

In the beginning, furniture donations trickled in. "I used to go to the warehouse and they had the furniture set up like little living rooms, with dollies, because there wasn't that much," Hache said.

But when the July 1987 tornado hit Edmonton, leaving 27 dead, and hundreds homeless, the warehouse became the hub of volunteer efforts.

"In a matter of hours you couldn't get in the door. The bags of clothes were higher than I was," she said.

Airth said more than 1,700 people were helped by the society, in August alone, after tornado.

When the society started they were seeing perhaps 40 families a month. Now they're seeing about 250 a month, including fire families, battered wives and kids, and flood victims, Airth said.

The society is holding an open house at its warehouse next Saturday from 11 a.m. to 4 p.m. to kick off a fund-raising campaign to gather \$60,000 for operating expenses, Airth said.

Recently, it received \$50,000 from the Wild Rose Foundation, part of which will be used to put two volunteers on salary for the first time, she said.

They need volunteers, particularly people with secretarial skills and someone able to fix small appliances, she said.

"It's really rewarding, but it's a lot of work. All of a sudden you get one person who comes in and you really realize what you're there for," he said. Sometimes transients come to the warehouse because they need clothes. "Then they drop a dollar in the box. You feel like taking it out and saying 'Here you need this.'"

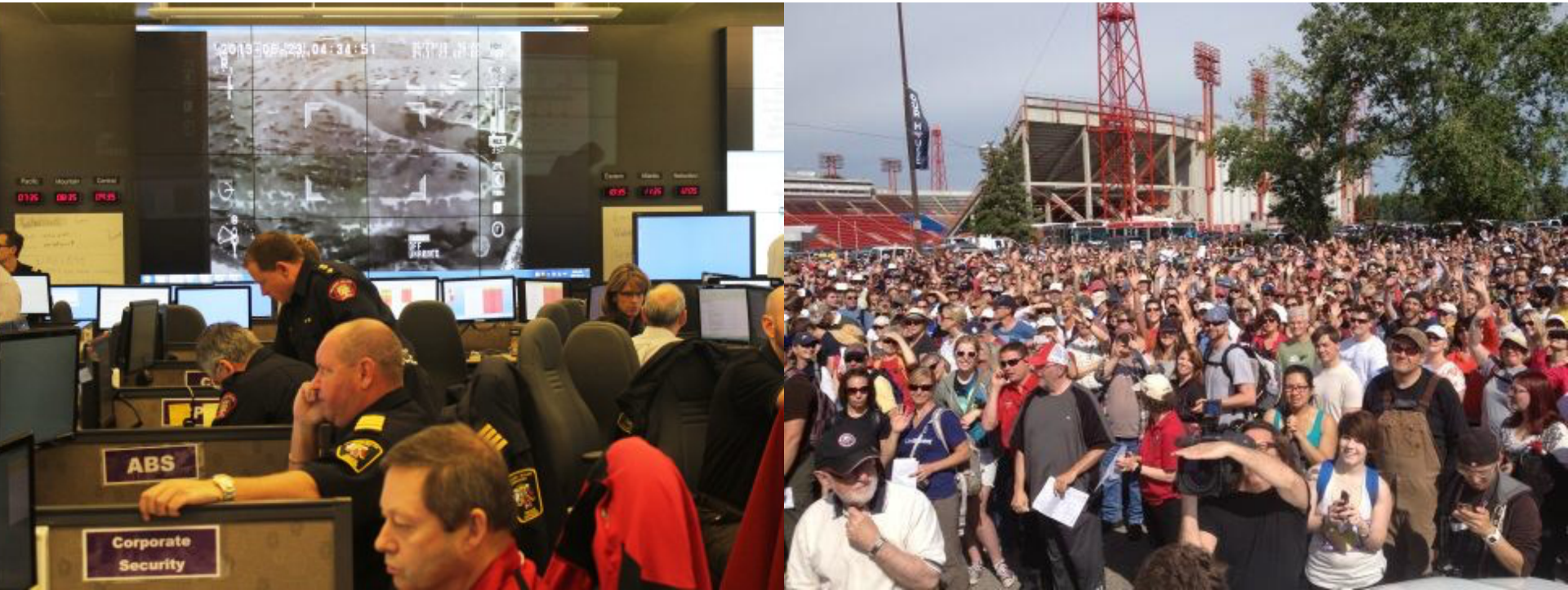


File photo  
Emergency Relief Services volunteers in crowded warehouse operation grew from an effort to help a burned-out neighbor

## Collective behaviour:

Type 4 - Unaffiliated volunteers

# Planning Assumptions



**Formal organized  
response**



**Collective  
behaviour**

Kreps, G. & Bosworth, S.L. (2007). Organizational Adaptation to Disaster. In Havidán, R., Quarantelli, E.L., & Dynes, R.R. (ed.), *Handbook of Disaster Research* (pp. 297-315). New York: Springer.

Chernobyl commemorative coin [Online image]. Retrieved from: [https://commons.wikimedia.org/wiki/File%3A1996\\_Chernobyl%2C\\_Ukraine\\_commemorative\\_coin\\_-\\_200%2C000\\_Karbovanets.png](https://commons.wikimedia.org/wiki/File%3A1996_Chernobyl%2C_Ukraine_commemorative_coin_-_200%2C000_Karbovanets.png)

# Characteristics of Convergent Behaviours

1. *Helping* responders and those impacted by disaster
2. *Being anxious* about the status of family and friends
3. *Returning* to the disaster area
4. *Supporting* by saying thanks
5. *Being curious* about the hazard effects and impact
6. *Mourning* those who died
7. *Exploiting* for personal gain or profit



# Collective Behaviours

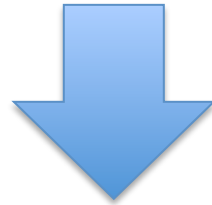
Pre-disaster social relationships are a predictor of collective response:

- pre-disaster community characteristics
- pre-disaster social networks
- previous experience



# Unaffiliated Volunteer Response

- **Hazard generated unmet needs:** search and rescue, clean-up and debris management, emergency and recovery assistance



- **Volunteer attributes:** motive to help, knowledge of local community, general and specific skills, access to resources



- **Response generated need:** coordinating the work of convergent volunteers and emergent volunteer groups



# Type 1: Established group organization of unaffiliated volunteers



# Type 1: Established group engagement with unaffiliated volunteers



Expect volunteers with specialized knowledge & skills, including knowledge of local context



# Type 2: Expanding group organizing

- Benefits from prior relationship with formal response system
  - Predefined tasks & emergent tasks
  - Capacity to absorb convergent volunteers



# Type 3: Extending group organizing

- May or may not have prior relationship with formal response system
- Use of existing resources to meet needs
- May or may not have capacity to coordinate convergent volunteers



- Businesses
- Volunteer centres
- Organizations working with high-risk populations

# Type 4: Emergent response organizing

1. Individual or group response
2. No prior relationship with formal response system – emergent activities
3. Relationship with formal response system may or may not be established during a response
4. Methods of organizing behaviours
  - a. Pre-established social networks
  - b. Parking lot organizing; street corner organizing



# Volunteer Response

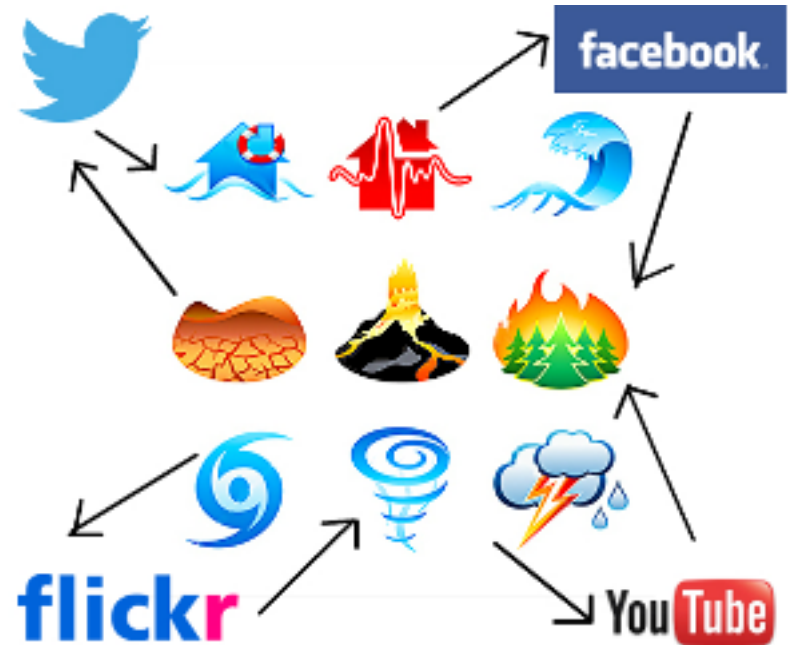
- **Oklahoma City Bombing:** 12,000 volunteers
- **Ground Zero:** 30,000 volunteers
- **Hurricane Katrina:** 60,000 volunteers
- **Kobe Earthquake:** 630,000-1.3 million volunteers




# Online Social Convergence

Changes to:

- methods of communication
- speed of convergence
- participation distance
- characteristics of activities, resources, tasks, & domains of volunteer participation



	<b>Regular and routine tasks</b>		
<b>Existing structures</b>	<b>Type 1: Established</b> Increasing professionalization	<b>Type 2: Expanding</b> Virtual operations support teams	<b>New structures</b>
	<b>Type 3: Extending</b> Mapping, software developers, social media mining	<b>Type 4: Emergent</b> <i>De-professionalization of technology is changing the characteristic of emergent activities, resources, tasks, domains</i>	
	<b>Non-regular tasks</b>		



# Type 4: Individuals coordinating convergent response



So. I am not Government, business, charity, NGO, NFP...I am just an individual, connecting you to anyone from anywhere who is trying to help, whether that be connecting you with other individuals, NFPs, NGOs, charities, businesses or the Government!



Being anxious and helping behaviours



# TASSIE FIRES

*we can help*



## Community driven response and recovery

What does that mean? Seeing a problem, coming up with a fast and safe solution... and going for it!

### TASSIE FIRES WE CAN HELP



Tassie Fires – We C...

Like Page 19k likes

Call Crime Stoppers

### ALERT TAS WEBSITE

This is the Tasmanian Government Emergency Website.



TAS ALERT

### HELP

[I WANT TO HELP NOW](#)

[I NEED HELP NOW](#)

**We need as many aid requests entered as possible so that people can start texting in to help!  
Text SANDY to 69866 to report a need.**

# OCCUPYSMS

OccupySMS expedites mutual aid on the ground by connecting people seeking and offering aid based on their specific location and needs in areas without power or Internet.

Volunteers offering aid (pumping, clean-up, repair, and supplies) will be given the addresses of households seeking those resources.

[Learn more.](#)



**TEXT SANDY TO 69866 TO REPORT A NEED**

Note: Please do not include distribution centers; this is for individual (household) needs.

**TEXT MUTUAL AID TO 69866 TO OFFER A RESOURCE**

Note: Please only text in your resource if you are **on-site** at an affected area.

# Type 4: Group coordination of convergent response





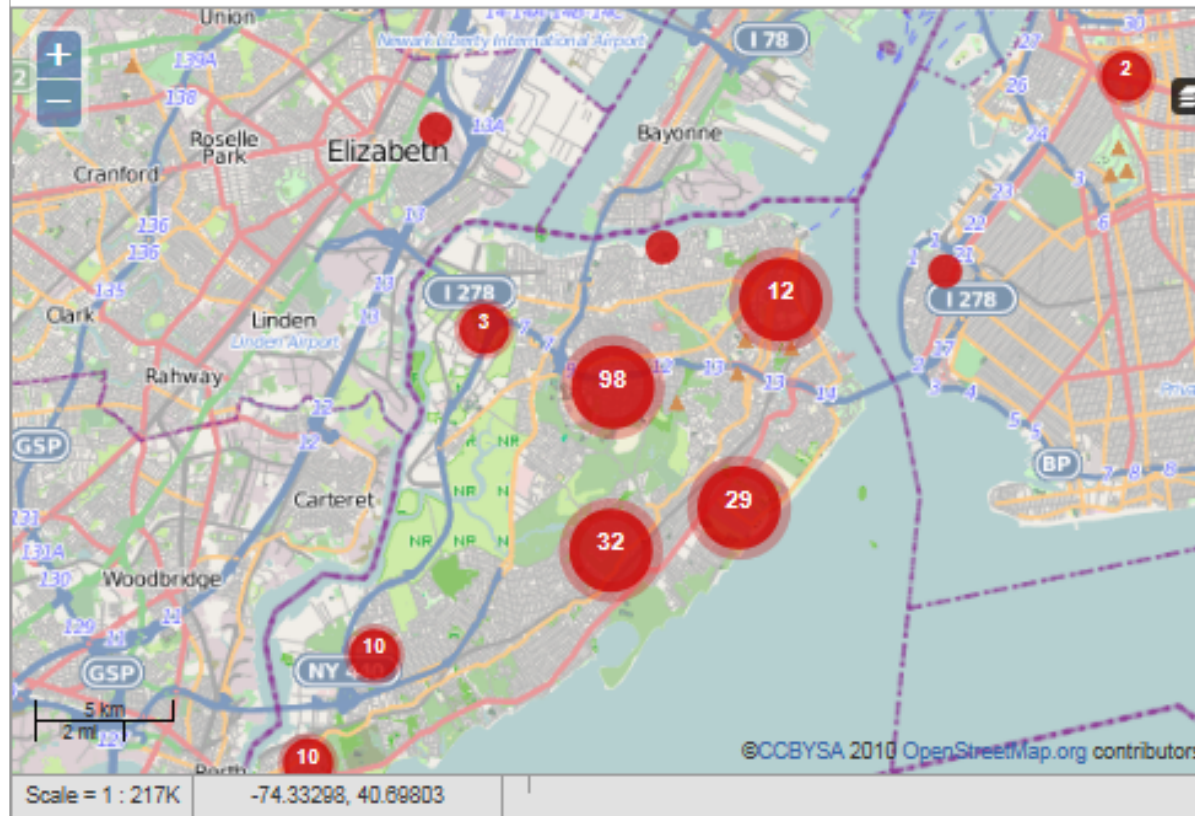
# Type 4: Emergent community response



# Type 3/4: Crowd mapping emergency and recovery needs and assistance

FILTERS → ALL NEWS PICTURES VIDEO

↓ CATEGORY FILTER [ HIDE ]

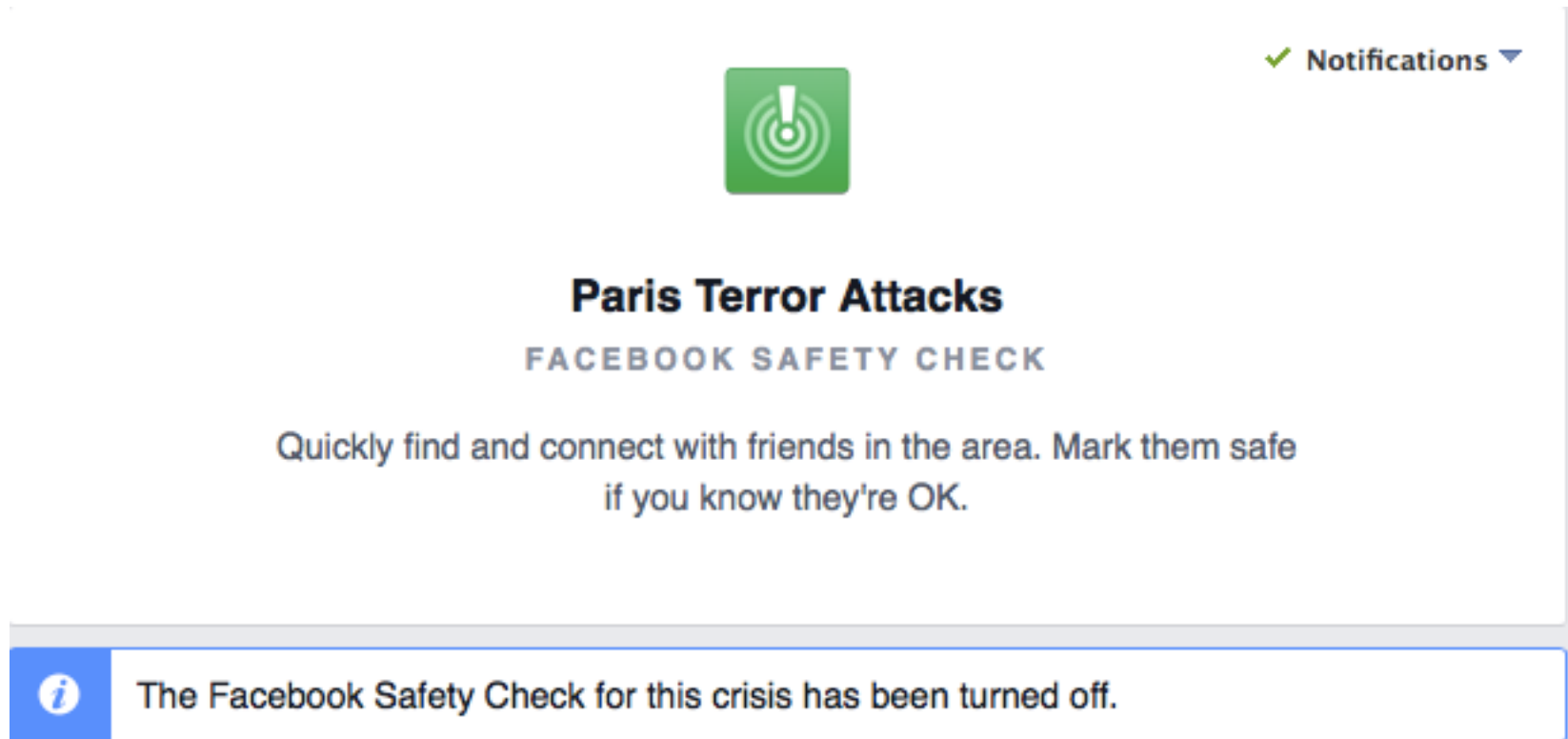


From: Nov 2012 to: Jan 2013

- ALL CATEGORIES
- FOOD, ICE
- HOUSING AVAILABLE
- VOLUNTEER INFORMATION FOR SUNDAY 11/11
- BENEFITS & FUNDRAISERS
- VOLUNTEERS NEEDED
- DRIVERS NEEDED
- GOODS/SERVICES
- MEDICAL SERVICES
- DONATIONS ACCEPTED

Helping behaviours

# Type 3: Extending organization response, new tasks



The image shows a screenshot of a Facebook Safety Check notification. At the top right, there is a green checkmark icon followed by the text "Notifications" and a downward-pointing triangle. In the center, there is a green square icon with a white exclamation mark and concentric circles. Below this icon, the text "Paris Terror Attacks" is displayed in bold, followed by "FACEBOOK SAFETY CHECK" in a smaller, all-caps font. Underneath, a message reads: "Quickly find and connect with friends in the area. Mark them safe if you know they're OK." At the bottom, a blue information bar contains a white information icon (an 'i' in a circle) and the text: "The Facebook Safety Check for this crisis has been turned off."

Being anxious and helping behaviours



# Type 4 transition to Type 2



Helping behaviours

# Type 2: New Resources



The screenshot shows the American Red Cross website interface. At the top right, there is a link for "About Us". The main header features the American Red Cross logo (a red cross inside a white circle) and the text "American Red Cross". Below the header is a navigation bar with "Back to Redcross.org" on the left and "Give B" on the right. The main content area is divided into two columns. The left column contains a list of navigation links: "Safe and Well Home", "List Myself As Safe and Well", "Enter Confirmation Code", "Search", "FAQ", "Help", and "Administrative Login (NHQ staff only)". The right column features a large heading "Register on the Safe and Well List" and a sub-heading "About the Safe and Well Website". Below the sub-heading is a paragraph of text explaining the registration process and the information collected.

About Us

 **American Red Cross**

Back to Redcross.org Give B

**Safe and Well Home**

**List Myself As Safe and Well**

**Enter Confirmation Code**

**Search**

**FAQ**

**Help**

**Administrative Login (NHQ staff only)**

## Register on the Safe and Well List

### About the Safe and Well Website

If you have been affected by a disaster, you can use the Safe and Well website to register yourself and your loved ones can view. Registering yourself on the Safe and Well website can update your entry at any time. Those searching on the Safe and Well website can find your name, along with your address or phone number. The Safe and Well website also collects your name, the date and time of registration, and the message you send when you register yourself as Safe and Well, you are agreeing to the use of your information.

Being anxious and helping behaviours

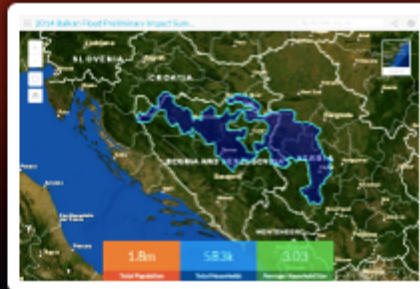
# Type 2: New Entities

Home Gallery Map Scene Groups

Sign In



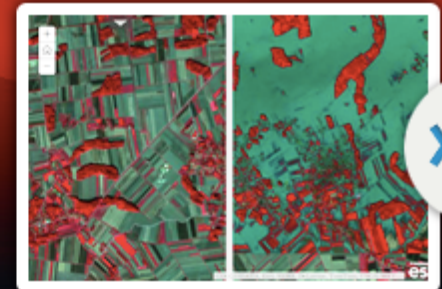
**Hagupit / RubyPH Rainfall Impact**



**2014 Southeast Europe Flood Impact Summary**



**Population Estimate Tool - 2014 Southeast Floods**



**Swipe Map: Floods in Southeast Europe (CIR)**

Helping behaviours



# Type 2: New Entities



Helping behaviours

# Type 1: Encouraging situational awareness inputs



**Brisbane City**  @brisbanecityqld · 26 Jan 2013

Thanks everyone for sharing reports with us on our crowdmap. You're doing great and helping others. [#bccinfo](#) [bne.cc/CrowdM](http://bne.cc/CrowdM)



9



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[View summary](#)

Being anxious and helping behaviours

# Multi-organizational Coordination





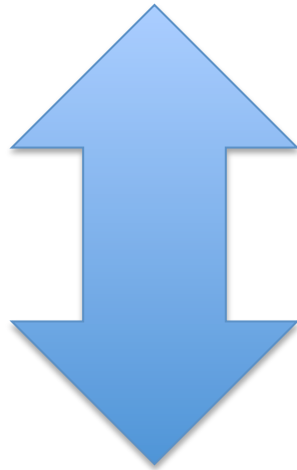
# Current Operating Environment

	<b>Regular and routine tasks</b>		
<b>Existing structures</b>	<b>Type 1: Established</b> Increasing professionalization	<b>Type 2: Expanding</b> Virtual operations support teams	<b>New structures</b>
	<b>Type 3: Extending</b> Mapping, software developers, social media mining	<b>Type 4: Emergent</b> <i>De-professionalization of technology is changing the characteristic of emergent activities, resources, tasks, domains</i>	
	<b>Non-regular tasks</b>		



## **Formal organized response:**

Domain>Tasks>Resources>Activities



## **Collective behaviour:**

Activities>Resources>Tasks>Domain