



Technical
University
of Crete



INTERNATIONAL
CRISIS & RISK
COMMUNICATION
CONFERENCE



Using social media to manage disaster volunteers in Greece

2015 International Crisis and Risk Communication Conference

Using social media to manage disaster volunteers in Greece

*2015 International Crisis and Risk Communication Conference –
Accountability, Metrics and Critique: March 3-4, 2015, Orlando, FL*

Dr. George Karagiannis

Technical University of Crete, Chania, Greece

Prof. Costas E. Synolakis

Technical University of Crete, Chania, Greece
University of Southern California, Los Angeles, CA



Outline

- Social media in disaster response
- Disaster volunteers in Europe
- Hellenic Red Cross
- Social media for volunteer management



Social media in disaster response

- Increasing role in disaster response.
- Can be used:
 - to passively disseminate public information; and
 - as a crisis communications tool to broadcast warnings, receive requests for assistance, enhance situational awareness, and improve damage estimates.
- The public turns to social media
 - for up-to-date and unfiltered information on the hazard event; and
 - to check the whereabouts of family and friends.



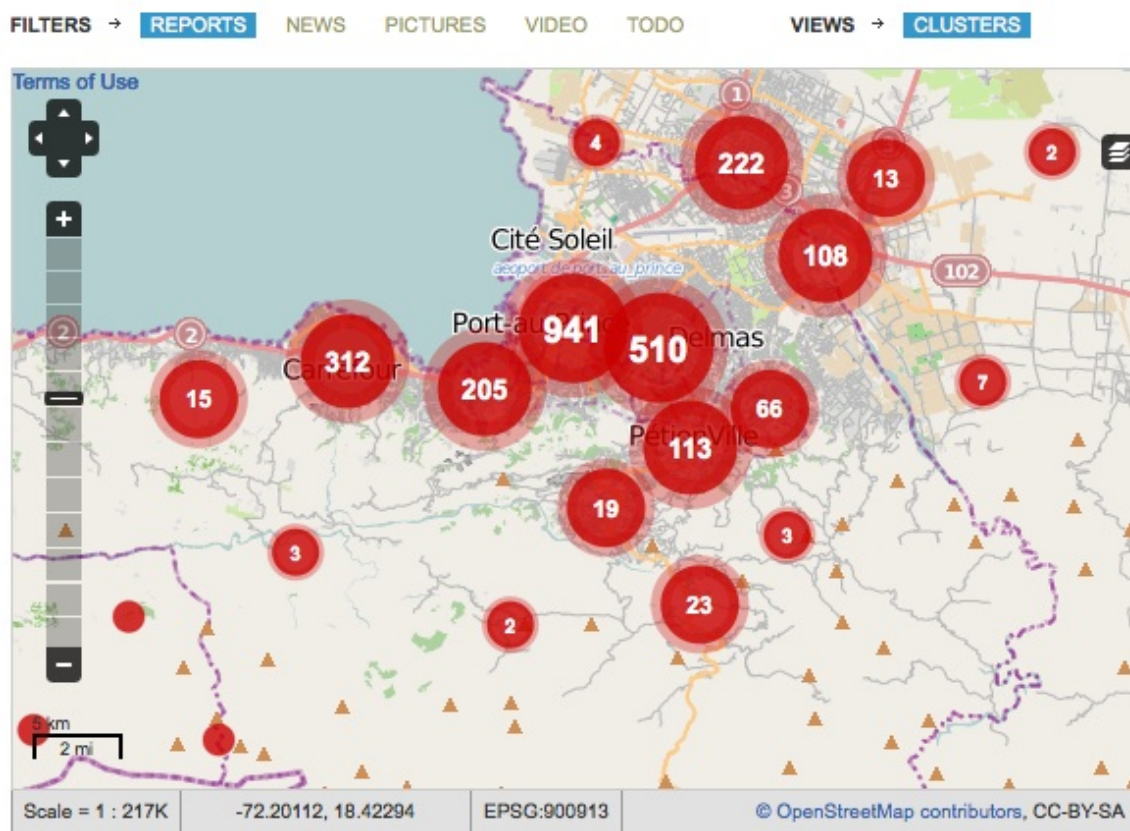


Social media in disaster response (cont.)





Crowdsourcing!!!

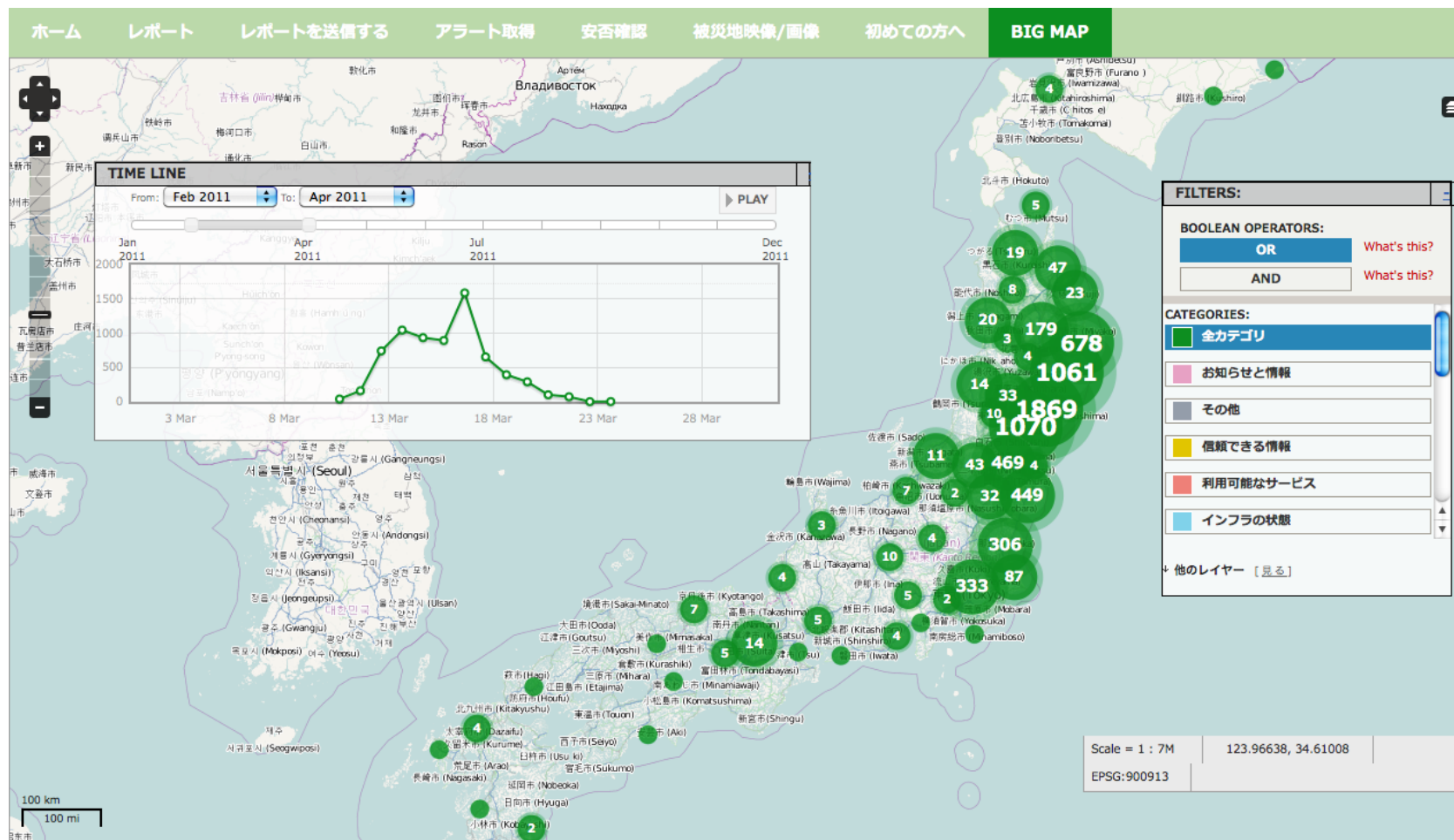


↓ CATEGORY FILTER

ALL CATEGORIES

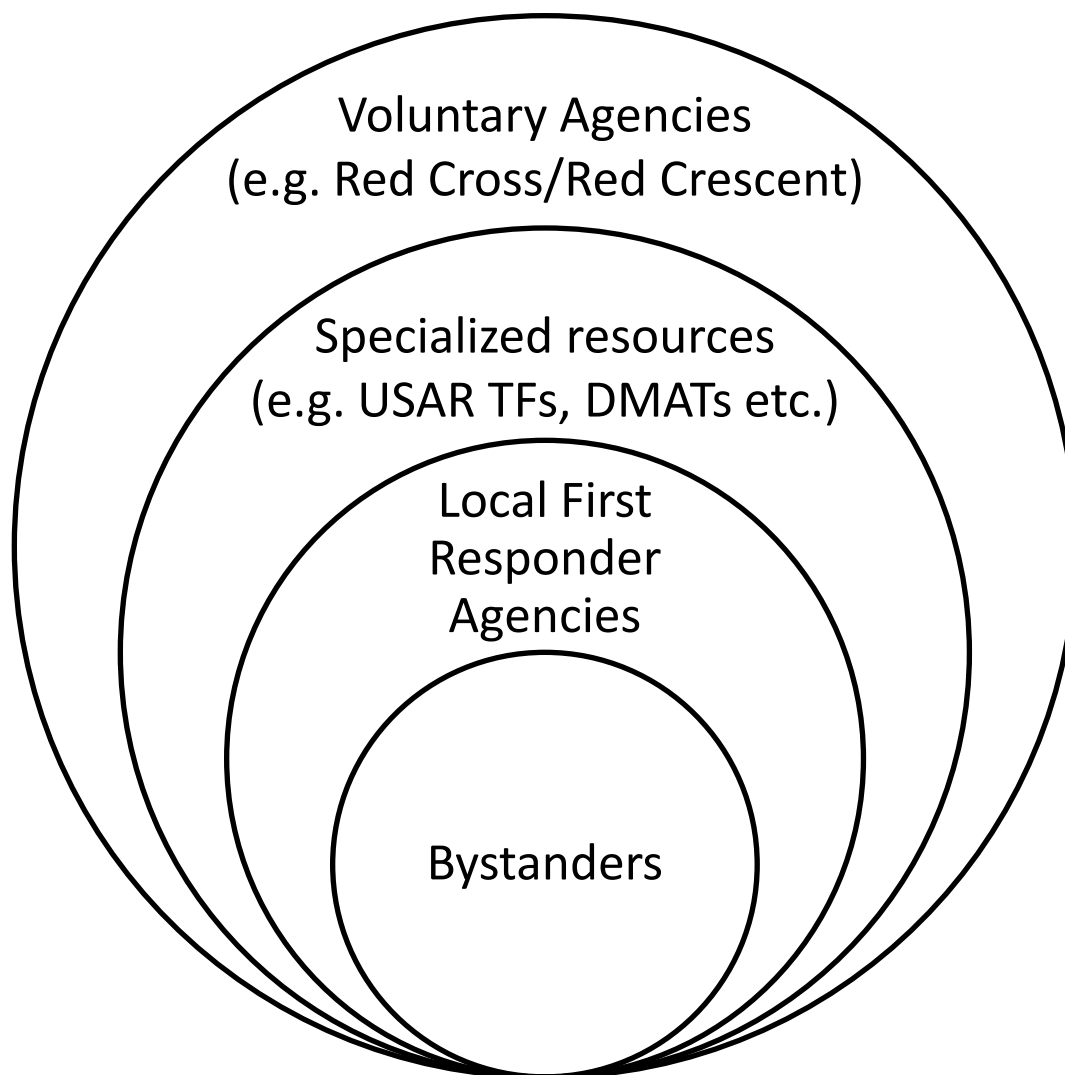
- 1. URGENCES | EMERGENCY
- 2. URGENCES LOGISTIQUES | VITAL LINES
- 3. PUBLIC HEALTH
- 4. MENACES | SECURITY THREATS
- 5. INFRASTRUCTURE DAMAGE
- 6. NATURAL HAZARDS
- 7. SECOURS | SERVICES

Crowdsourcing!!!





Volunteers in disasters





Disaster volunteers in Europe





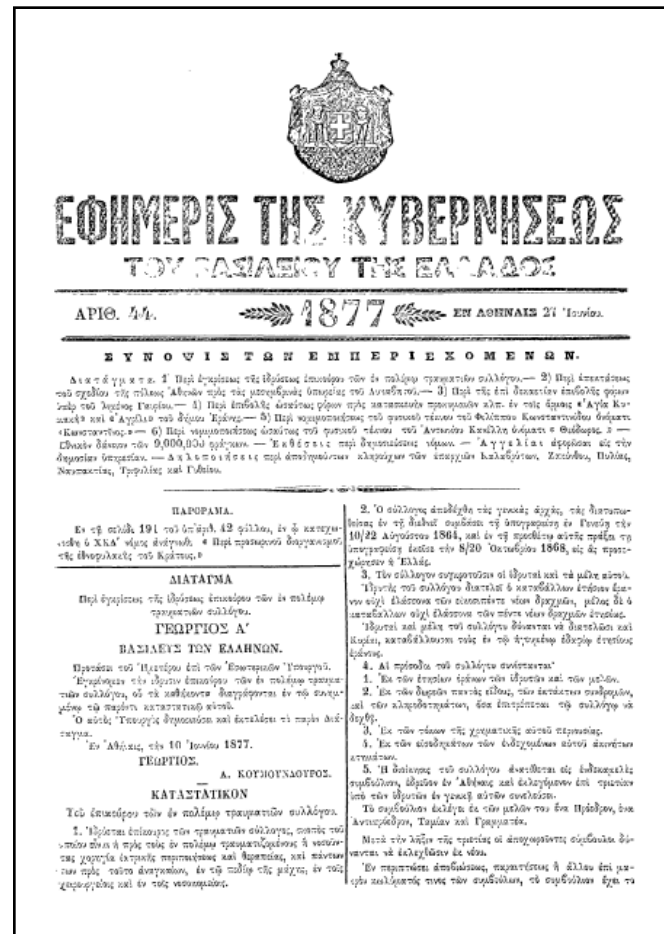
Research hypothesis and methodology

- We have focused on the range of communications means used during each disaster management activity.
- Key parameters include:
 - Speed of message delivery and message volume.
 - Reliability and security.
- The Hellenic Red Cross Operations Branch was used as a test case:
 - semi-structured interviews with Local Branch Managers actively using social media for volunteer management (n=7); and
 - questionnaires with individual volunteers (n=108).



Hellenic Red Cross

- Established by Royal Decree in 1877
 - Geneva Conventions ratified in 1956
 - Additional Protocols ratified in 1988 (AP I) and 1992 (AP II)
- Today, includes 3 functional Branches
 - Nursing Division
 - Social Welfare Division
 - Samaritans, Rescuers and Lifeguards Division





Hellenic Red Cross

Samaritans, Rescuers and Lifeguards Division

- a.k.a. Hellenic Red Cross – Operations Branch
- Established in 1932 as the first Ambulance Service in Greece.
 - “Samaritans” were actually the first Greek EMTs
- Focus on rescue and disaster services





Routine stuff...

Event First Aid



Lifeguard Stations





Prevention and Preparedness

Public education



Training and exercises



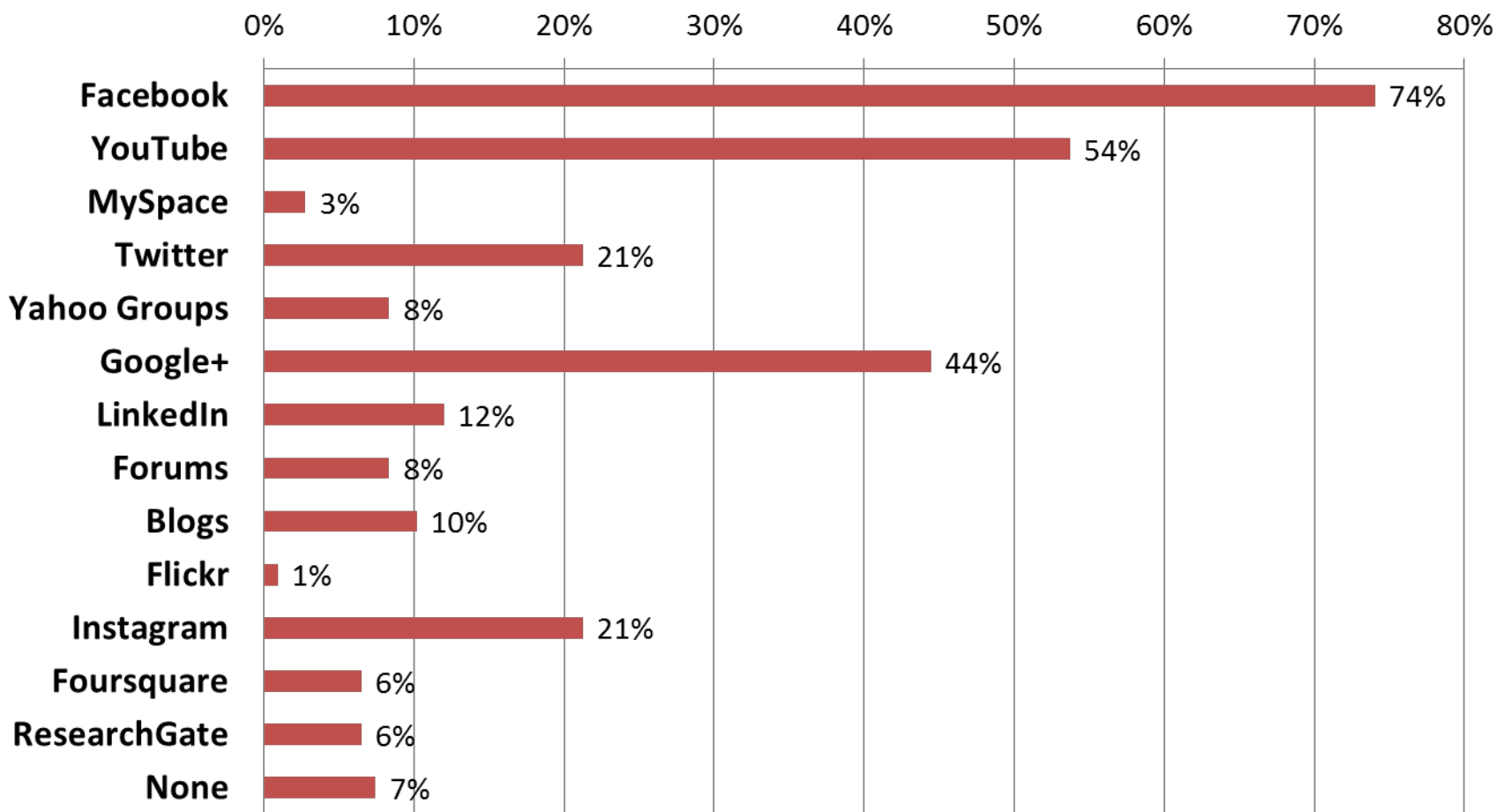


Volunteer Management: Communications

- Facebook messages
 - Used for routine information.
 - Volunteers typically get the message within a day.
 - Feedback on message reception.
 - No messaging lists: risk of forgetting someone and takes more time.

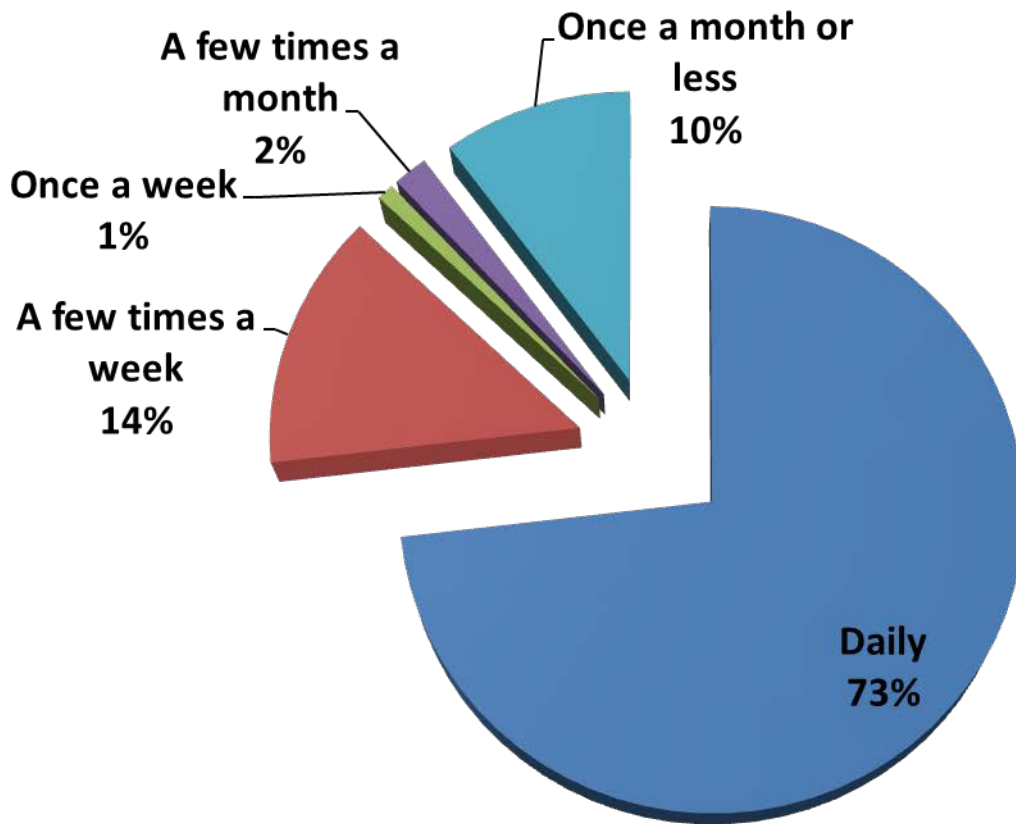


Nearly all volunteers participate in at least one online community or social network





The majority (87%) participates in social media every day or nearly every day





Volunteer Management: Communications

- Facebook messages
 - Used for routine information.
 - Volunteers typically get the message within a day.
 - Feedback on message reception.
 - No messaging lists: risk of forgetting someone and takes more time.
- E-mail
 - Used for routine information, but generally considered more formal.
 - E-mail lists reduce time and the risk of forgetting someone.
 - Volunteers typically get the message within 3 days.
- **Compared to alternatives, both reduce time and cost!**



Responding to emergencies...

Wilderness/Mountain SAR



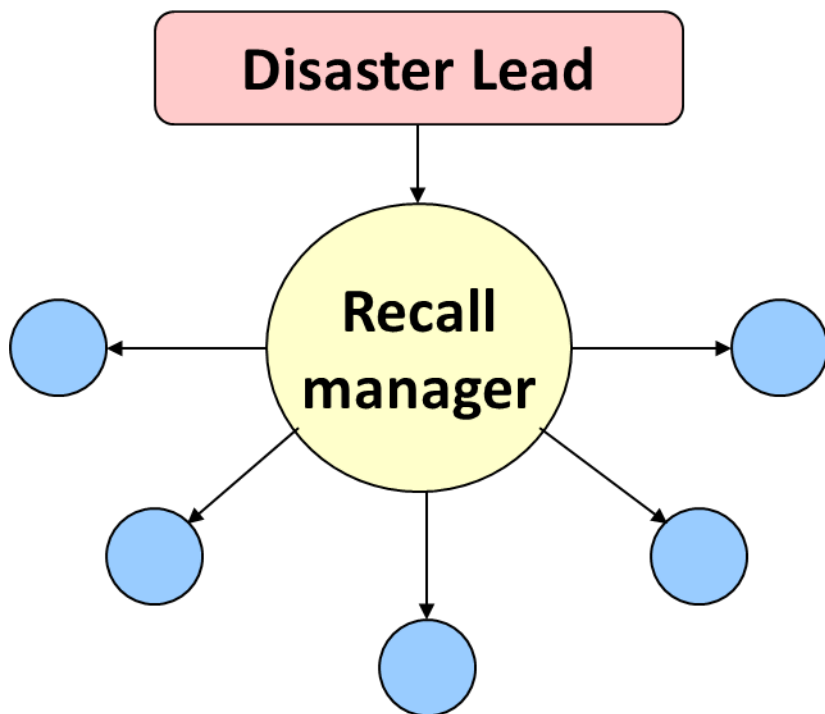
Wildland Firefighting (Type II Crews)



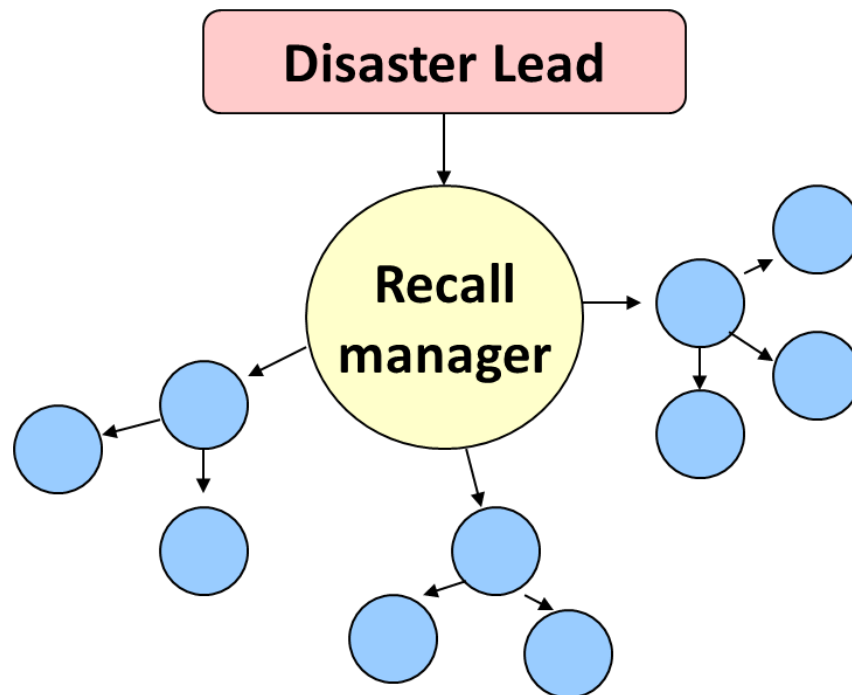


Emergency staff recall procedures

“Dispatch” procedure



“Pyramid” procedure



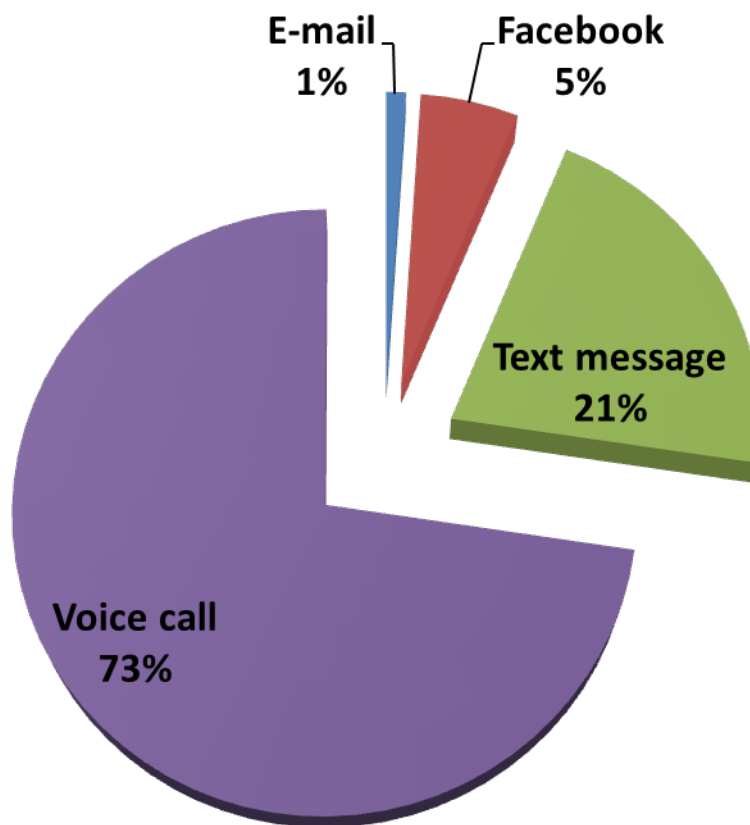


Staff recall for isolated emergencies

- Isolated emergencies generally require limited personnel with specialized skills.
 - E.g. search and rescue, technical rescue, emergency medical etc.
- Internet-based text message service used for preparatory alerts/briefings.
 - Less information is conveyed.
 - Used when no feedback is required.
- Voice calls are the preferred approach, for two reasons:
 - Limited personnel with specialized skills.
 - Volunteers need to readily acknowledge their availability.
- “Dispatch” procedure preferred over “pyramid” procedure.



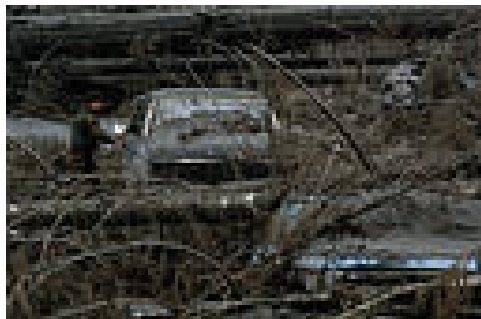
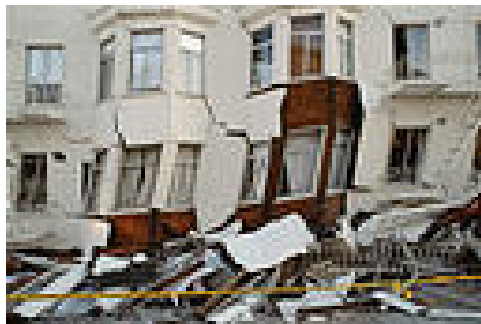
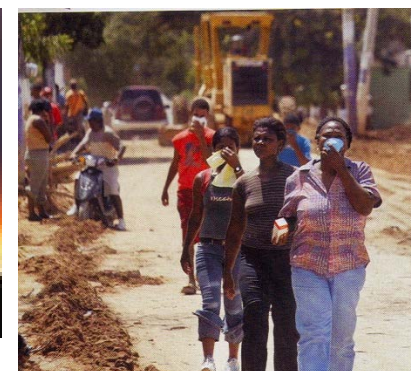
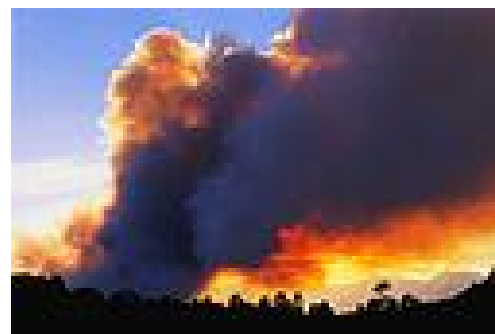
The majority (94%) of volunteers believe traditional communication methods are faster for staff recall



Imagine that your Local HRC Chapter needs to recall volunteers for an isolated emergency (e.g. a lost person incident). Which one of the following communication tools could you be reached more quickly with?

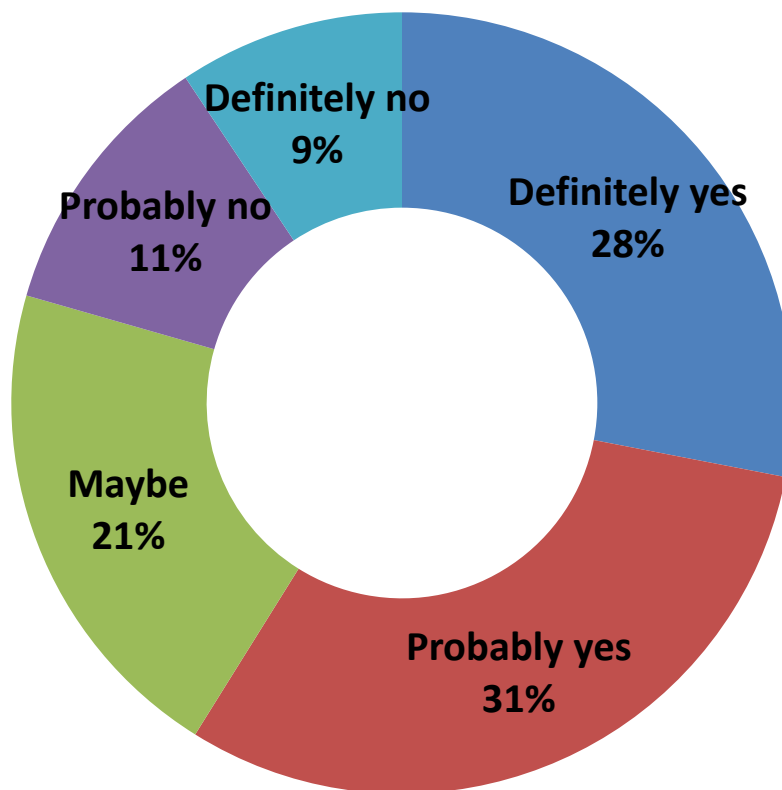


When disaster strikes...





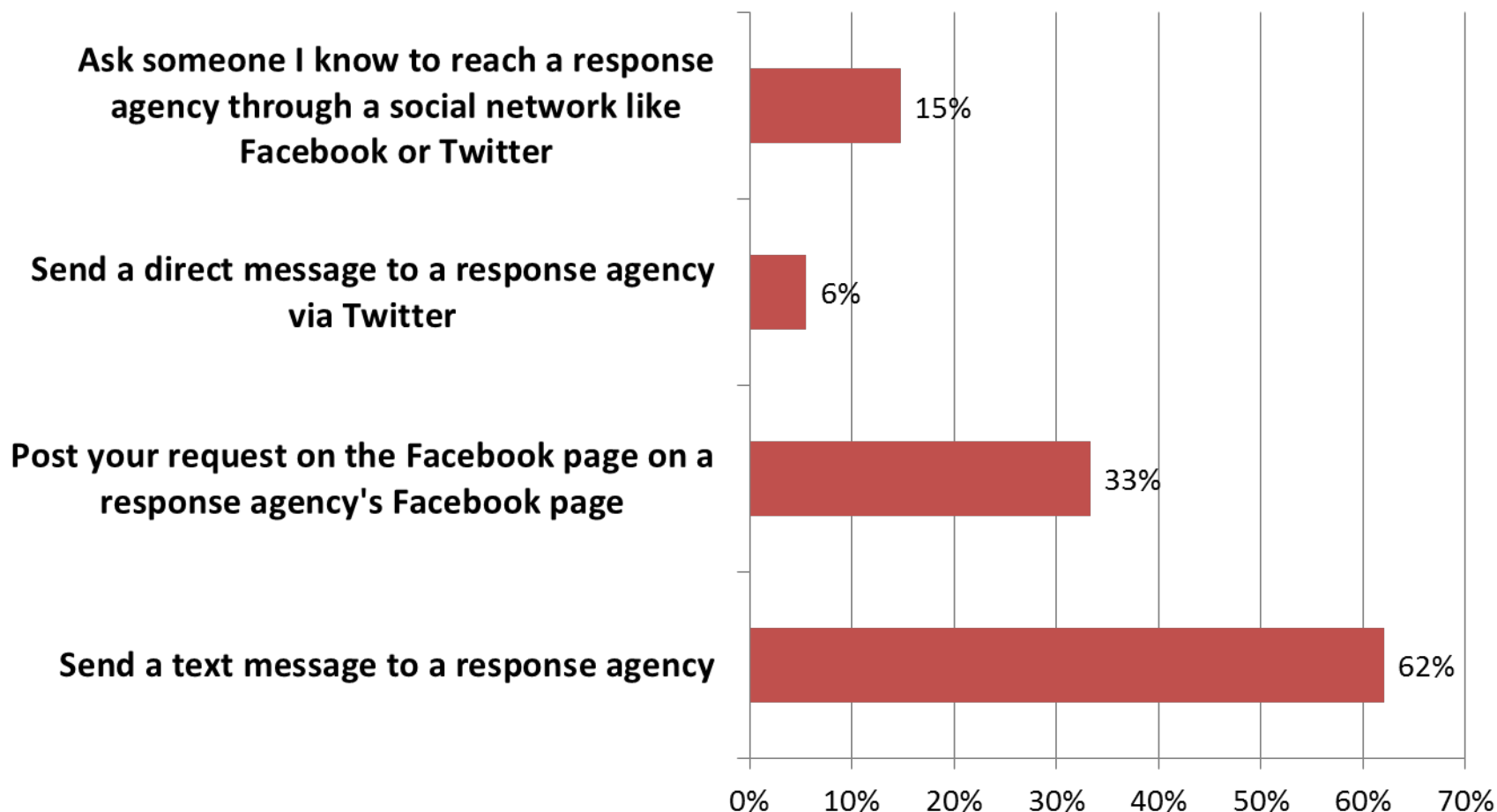
In the aftermath of a disaster, nearly half would use social media to let loved ones know they are safe



How likely would you be to use social media channels to let your friends and family know you are safe in the aftermath of a disaster?



More than half would send a text message to a response agency if someone they knew needed help



If someone you knew needed urgent help in the aftermath of a disaster, would you try to request help in any of the following ways?



When disaster strikes... (cont.)

Mass Care



Psychosocial Care





When disaster strikes... (cont.)

First Responder Base Camps



Urban Search and Rescue



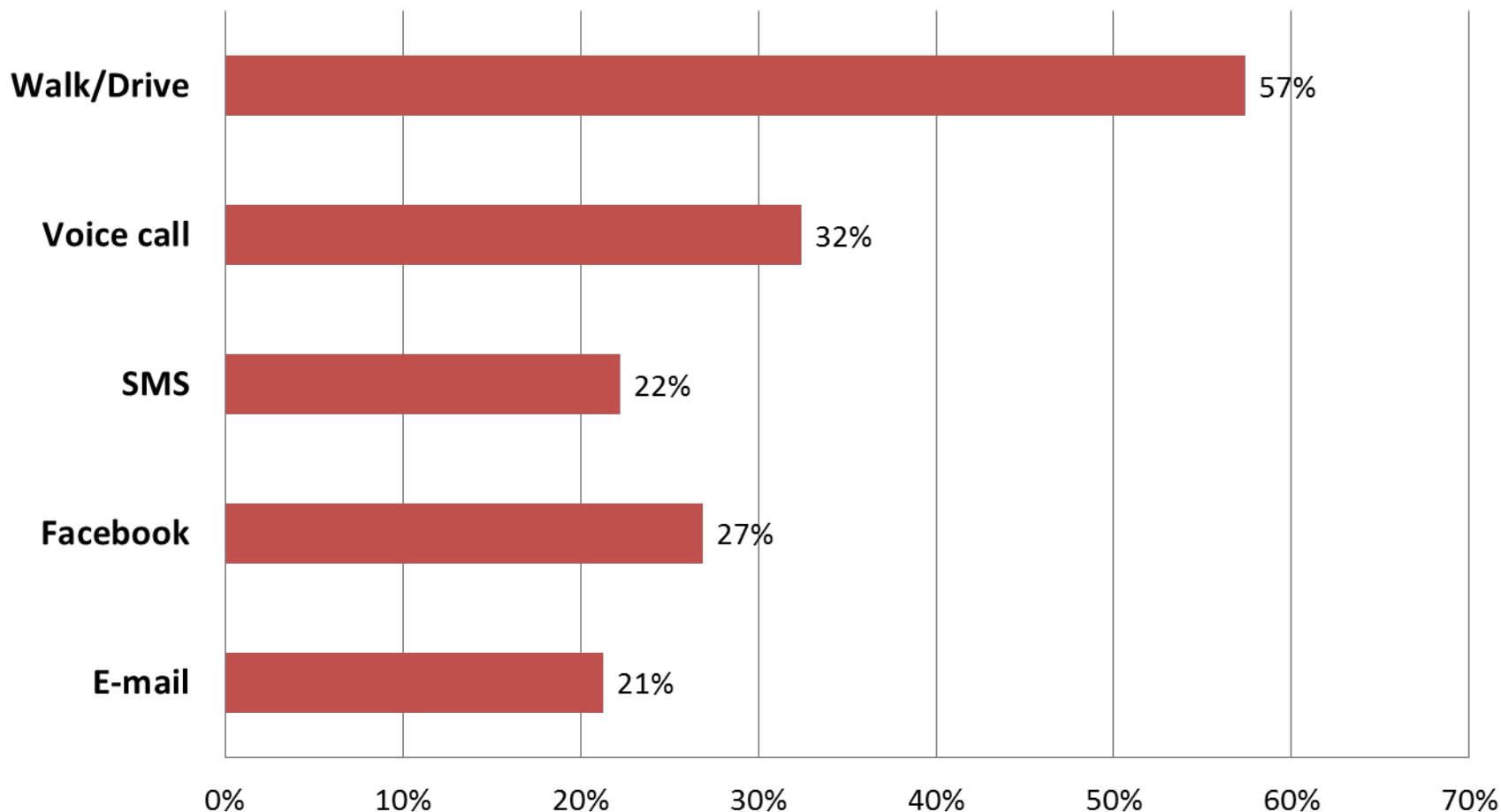


Staff recall in disasters

- Limited information required, provided there is a procedure.
- HRC Local Chapter Managers generally prefer voice calls.
 - Provide immediate feedback and are considered more reliable.
 - Staff recall procedures generally call for volunteers to report to the Local Chapter building as a contingency.
 - Text messages have also been used occasionally.
- “Self-mobilization” has been successful in getting volunteers to the Local Chapter, yet in some cases:
 - The number of volunteers who reported in largely outnumbered the needs, causing logistical problems.
 - Volunteers have reported in without personal “24-hour pack”.



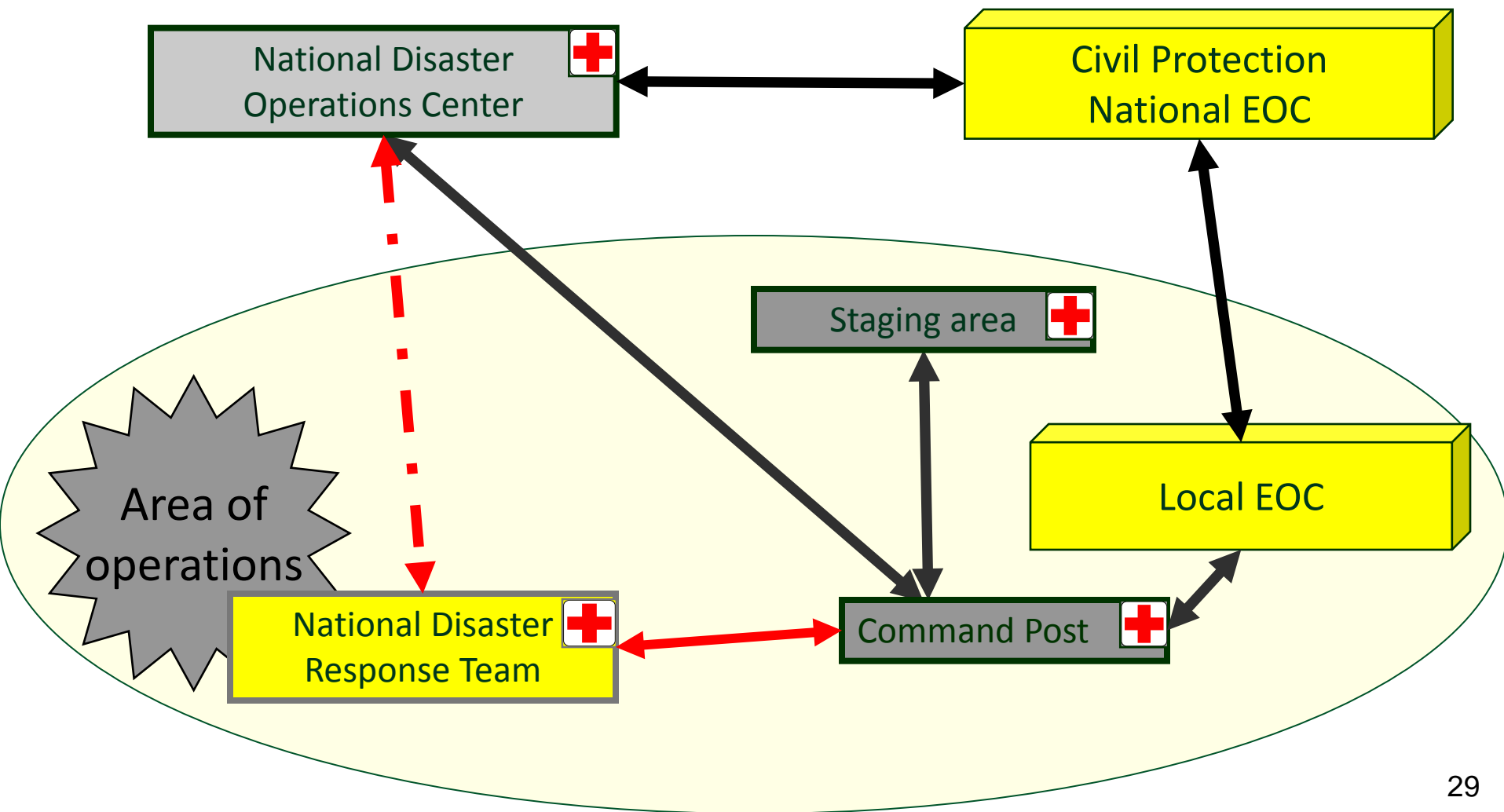
Most than half (57%) of volunteers would walk or drive to the Local Chapter after a disaster



Imagine that you are on a rescue or relief mission after a major disaster. You have repeatedly called your HRC Local Chapter and gotten a busy signal. What other methods would you use ?



HRC disaster response organization



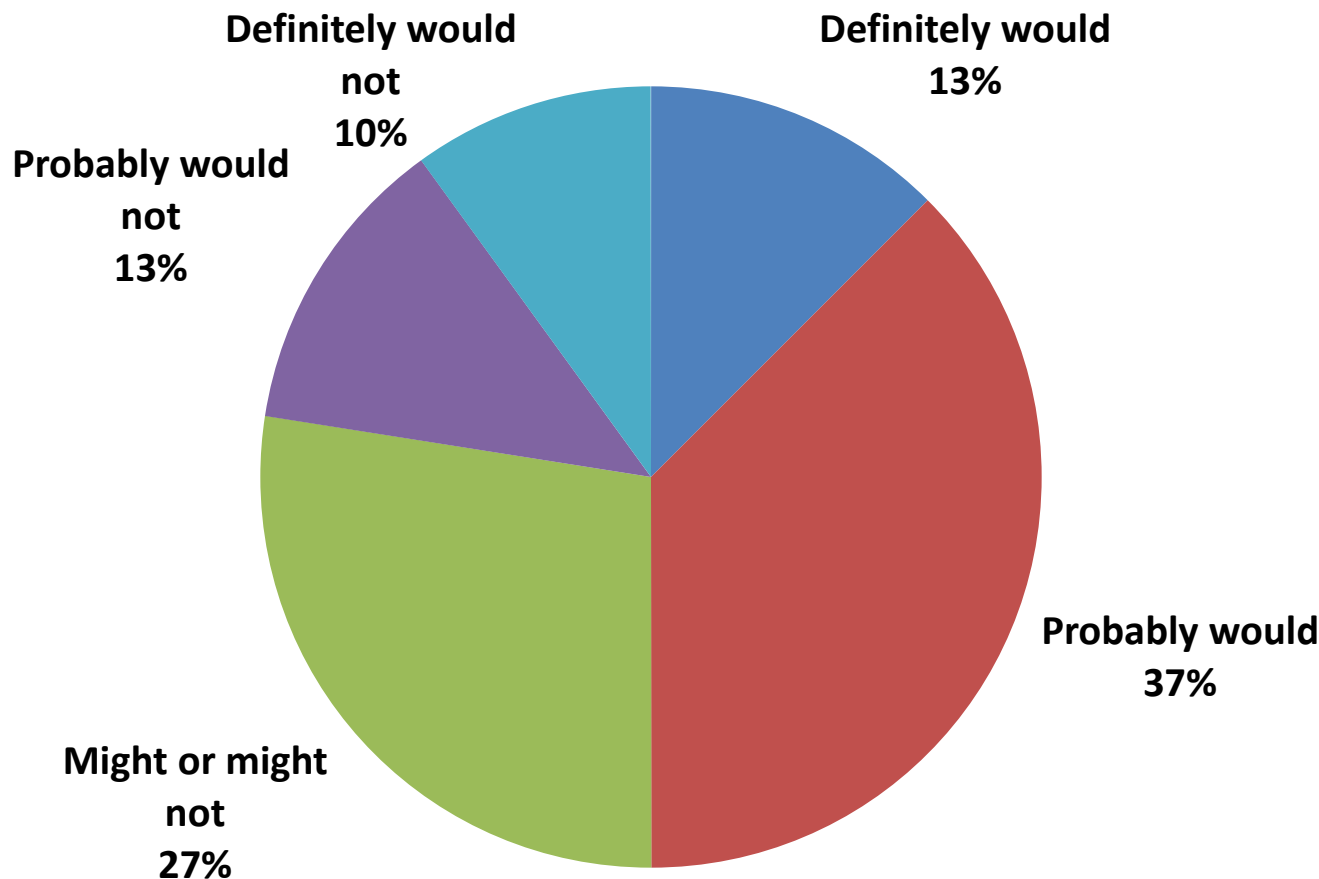


Reliability

- Voice call and data services are nearly equally vulnerable to traffic surge.
- Voice calls are preferred for post-disaster communication.
- Text message service has often been proven to remain functional until after voice and data services become unavailable.
 - It is difficult to determine the delay in message delivery.



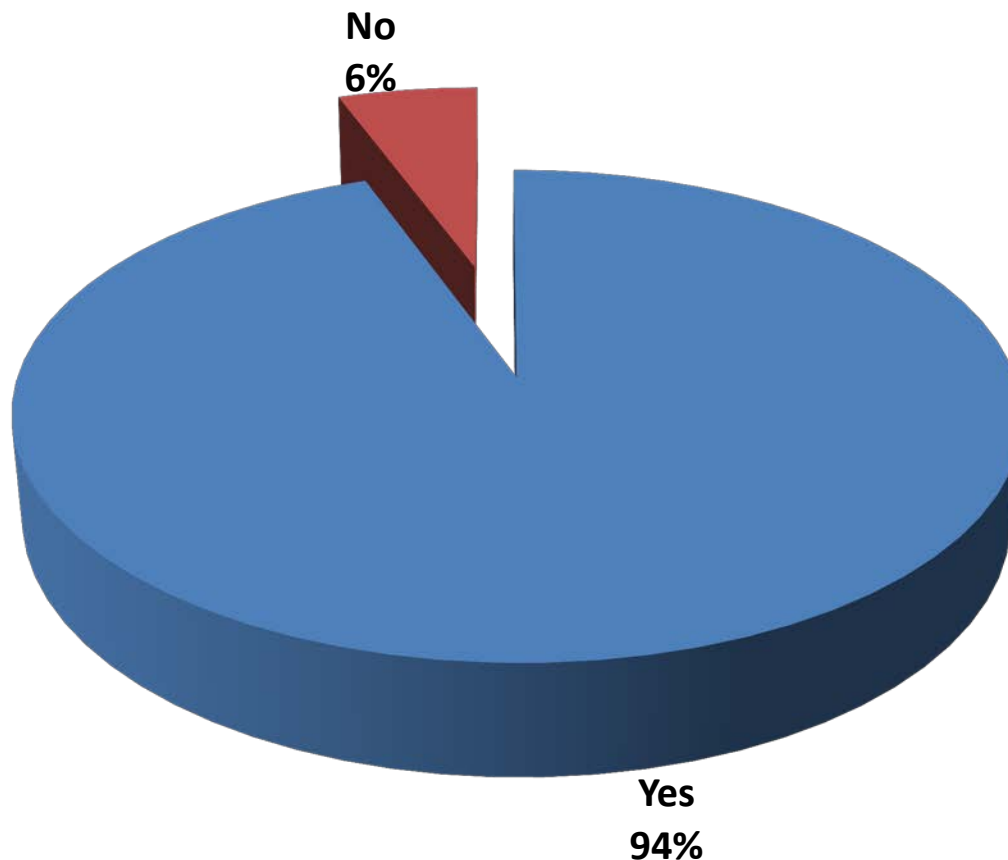
Half would use social media as backup operational communications



Imagine that you are on a rescue or relief mission after a major disaster. You have repeatedly called your HRC Local Chapter to request for additional resources and gotten a busy signal. How likely would you be to use social media channels to communicate?



Nearly all agree that the HRC should regularly monitor postings on social media



Do you agree that the HRC National Disaster Operations Center should regularly monitor social media sites in case of disaster so they can respond promptly to any requests for assistance posted there.



Conclusion

- Social media are an inexpensive communication tool for volunteer organizations active in disaster.
 - Traditional means of communication have been preferred, yet evidence suggests that social media and e-mail could also be used.
 - Speed of message delivery, message volume and reliability are key concerns.
- Communications redundancy seems to be the solution in the absence of further evidence.
- Further research is needed on post-disaster reliability and effectiveness of communications solutions.



Acknowledgements

The authors are grateful to the volunteers and leadership of the Hellenic Red Cross Samaritan, Rescuer and Lifeguard Division for participating in this study.



**Hellenic
Red Cross**

Samaritans, Rescuers and Lifeguards Division





Technical
University
of Crete



INTERNATIONAL
CRISIS & RISK
COMMUNICATION
CONFERENCE



Using social media to manage disaster volunteers in Greece

2015 International Crisis and Risk Communication Conference

Thank you for your attention!

Using social media to manage disaster volunteers in Greece

*2015 International Crisis and Risk Communication Conference –
Accountability, Metrics and Critique: March 3-4, 2015, Orlando, FL*

Dr. George Karagiannis

Technical University of Crete, Chania, Greece

Prof. Costas E. Synolakis

Technical University of Crete, Chania, Greece
University of Southern California, Los Angeles, CA



Any questions??

