The New Era of Hazards Communication: A Review of Emergency Manager’s Use of Social Media During Superstorm Sandy

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A New Weather Delivery System

- Two way communication
- Highly tailored messages
- Instant notification
- New outlet for warning information
On a scale from zero to ten, where zero means not at all important, and ten means extremely important, please indicate the importance to you, personally, of each of the following sources of information about severe weather such as tornadoes...

**Graph provided by Silva et al. (2014) from the University of Oklahoma’s Center for Risk and Crisis Management**
Research Questions

1. How was social media used during Superstorm Sandy by official emergency management agencies?

2. Is the public seeking information from emergency managers on social media?

3. What types of messages generate the most response from the public?
Data

- Event: Superstorm Sandy
- Area: Northeast Region
  - 6 EM agencies
- Timeframe: 23 October – 1 November 2012
- Medium: Facebook and Twitter

<table>
<thead>
<tr>
<th>State</th>
<th>Social Media</th>
<th>Name of Organization</th>
<th>Followers/Likes*</th>
<th>Followers/Likes**</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD</td>
<td>Twitter</td>
<td>@ MDMEMA</td>
<td>15195</td>
<td>16582</td>
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<td>DE</td>
<td>Facebook</td>
<td>Delaware Emergency Management Agency</td>
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<td>NYC Office of Emergency Management</td>
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<td>Twitter</td>
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<td>29694</td>
</tr>
</tbody>
</table>

*As of July 18, 2013
**As of November 25, 2013
Methodology

Determine main social media outlet

Twitter

Collect data directly from page

Snapbird

Facebook

Collect data directly from page

Removed posts unrelated to Sandy

Calculate daily post/response numbers
Tertiary review

Calculate final statistics

Multiple QC measures taken into account
Results: Total Activity
Results: Percentage of Followers

Mid Atlantic

Tri-State

New England
Maryland

Themes:
• Public safety
• Distribution of power information
Delaware

Themes:
- Public safety
- Strong emphasis on transportation
  - Visual examples
- Address worries of missing work

Delaware Emergency Management Agency

#SandyDE Many people have expressed concerns about being forced to report to work. Please note: The law protects employees who do not report to work from adverse employment actions if there is a State of Emergency with a Level 3 driving ban or a Level 2 driving restriction. 20 Del C. 3116(a)(12). The law does not apply to first responders and, in the case of level 2 driving restriction, it does not apply for some employers, such as those providing healthcare services or food and fuel deliveries, or those essential employees designated by employers with a waiver from DEMA. Contact your employer for information about how these driving restrictions affect you.

Complaints by employees that an employer took action against them would be handled by the Department of Labor's Office of Labor Law Enforcement, Wage and Hour section at 302-451-3404, once state agencies are open again.

Delaware Emergency Management Agency

Here is a pretty vivid visual example of why you should not be venturing out on the roads in Delaware. Level 2 driving restrictions are in place, but this photo speaks volumes. Thanks to Jim Westhoff of DeDOT for providing it.

The message this morning is to take a day. While it may appear that conditions are normal outside, there is still danger. Trees, branches, and other debris still block some roadways. There are downed power lines across the state. Numerous roads are covered with water and a number of roads are flooded and impassable. Give emergency crews time to work without having to work around people and vehicles. The Level 2 driving restriction is still in effect so unless you are classified as essential, you still should not be on the roads.

Take a day.
NYC

Themes:
• Distribution of information, especially about transportation services
• Power information
• Represents the busy characteristics of NYC
New Jersey

Themes:
- Personal
  - Public appreciation
- Impacts on daily life
Massachusetts

Themes:
• Power outage information
• State of emergency announcement
Rhode Island

Themes:
- General safety information
  - High wind projectiles
  - Power
  - Road conditions

Rhode Island EMA

Trees & wires down. Use extreme caution near wires. For your safety, treat them as live and deadly. #Sandy #RI nationalgridus.com/masselectric/s...

Rhode Island EMA

Bridges are OPEN in #RI. Still, please try to stay off roads for safety's sake. For road closure info, visit 511.dot.ri.gov #SandyRI

Rhode Island EMA

Call 2-1-1 for non-emergency calls and shelter information. #SandyRI
Conclusions

- People are turning to emergency managers on social media at an increasing rate.
- During hazardous events, social media activity on the emergency manager’s pages increases.
- Impact information due to Sandy generated the greatest response rates.
  - People turn to emergency managers for information about inconveniences to daily life and how to mitigate those inconveniences.
- Emergency managers have the added responsibility of keeping up social media sites during high impact events.
Questions? Comments?

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