Social Media in Emergency Response:

A Study in Facebook and Twitter

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Overview

- Background information on social media

- Technologies that are currently available

- Ideas on how the emergency response community can take advantage of these technologies
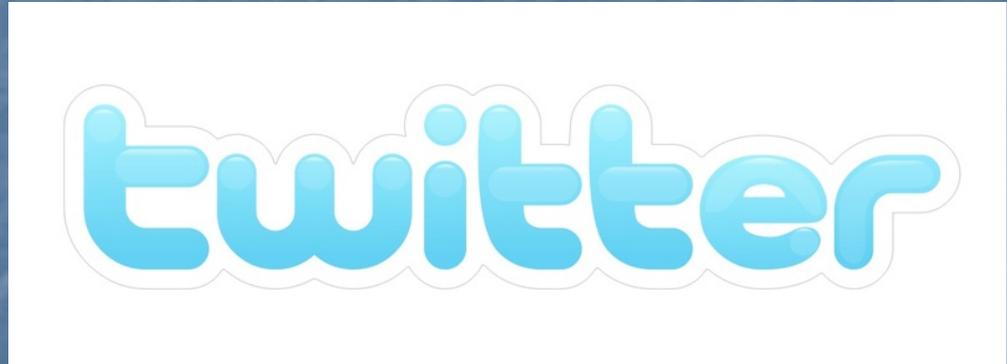
What is Social Media?

- Technology enabled social interaction

- Community-based interaction

- Intended to facilitate communications, influence interaction between peers and with public audiences

Social Media is the product of collaboration

Examples of Popular Social Media Websites

What is Facebook?

- Founded in 2004

- Free social networking website that allows user to create profiles, post updates, pictures, videos, and blogs for people they have "friended"

- Allow users to access uploaded and linked information and communicate with other users

- **Currently has over 300,000,000 active users**

Facebook Statistics

- **General Growth**
- More than 300 million active users
- 50% of active users log on to Facebook in any given day
- **The fastest growing demographic is those 35 years old and older**

- **User Engagement**
- Average user has 130 friends on the site
- More than 8 billion minutes are spent on Facebook each day (worldwide)
- More than 45 million status updates each day
- More than 10 million users become fans of Pages each day

- **Applications**
- **More than 2 billion photos uploaded to the site each month**
- **More than 14 million videos uploaded each month**
- **More than 2 billion pieces of content (web links, news stories, blog posts, notes, photos, etc.) shared each week**
- **More than 3 million events created each month**
- **More than 45 million active user groups exist on the site**

Statistics provided by Facebook

Facebook Statistics

- **International Growth**
- More than 70 translations available on the site
- About 70% of Facebook users are outside the United States

- **Mobile**
- There are more than 65 million active users currently accessing Facebook through their mobile devices.
- People that use Facebook on their mobile devices are almost 50% more active on Facebook than non-mobile users.
- There are more than 180 mobile operators in 60 countries working to deploy and promote Facebook mobile products

What is Twitter?

- Founded in 2006

- Free social networking and micro-blogging service that enables its users to send and read other users' updates known as *tweets*

- *Tweets* are text-based posts of up to 140 characters in length which are displayed on the user's profile page and delivered to other users who have subscribed to them (known as *followers*)

What is Twitter?

■ Hashtags (#) are a community-driven convention for adding additional context and metadata to your tweets. You create a hashtag simply by prefixing a word with a hash symbol: *#hashtag*.

■ Websites like http://hashtags.org/ provide real-time tracking of Twitter hashtags. For example, you can search #FtHood, #DCsniper or #VeteransDay to find all "tweets" with that hashtag.

■ Users have the ability to relay immediate information, such as breaking news from people at the scene, before major news outlets can cover it AND people can search for this news from remote locations.

Twitpic

- Twitpic is a website that allows users to easily post pictures to Twitter

- With twitpic, people can upload and distribute pictures in near real-time as an event is taking place.

- Example: Used in the January 2009, US Airways Flight 1549 experienced multiple bird strikes and had to be landed in the Hudson River after takeoff LaGuardia Airport. A passenger on one of the ferries that rushed to help, took a picture of the downed plane as passengers were still evacuating and tweeted it via Twitpic before traditional media arrived at the scene.

- **Twitter has the potential to provide users with real-time information in emergency responses.**

U.S. Senators on Twitter

- 19 U.S. Senators have Twitter accounts

- [Barbara Boxer](#) (D-CA)
- [Tom Coburn](#) (R-OK)
- [Susan Collins](#) (R-ME)
- [John Cornyn](#) (R-TX)
- [Jim DeMint](#) (R-SC)
- [Chris Dodd](#) (D-CT)
- [Richard Durbin](#) (D-IL)
- [John Ensign](#) (R-NV)
- [Chuck Grassley](#) (R-IA)

- [Jim Inhofe](#) (R-OK)
- [Mel Martinez](#) (R-FL)
- [John McCain](#) (R-AZ)
- [Claire McCaskill](#) (D-MO)
- [Robert Menendez](#) (D-NJ)
- [Jeff Merkley](#) (D-OR)
- [Mark Udall](#) (D-CO)
- [Tom Udall](#) (D-NM)
- [Mark Warner](#) (D-VA)
- [Roger Wicker](#) (R-MS)

U.S. Representatives on Twitter

- **51 U.S. Representatives have Twitter accounts**

- [Neil Abercrombie](#) (D-HI)
- [Michele Bachmann](#) (R-MN)
- [Roy Blunt](#) (R-MO)
- [John Boehner](#) (R-OH)
- [John Boozman](#) (R-AR)
- [Michael Burgess](#) (R-TX)
- [Dan Burton](#) (R-IN)
- [Eric Cantor](#) (R-VA)
- [Virginia Foxx](#) (R-NC)
- [Marcia Fudge](#) (D-OH)
- [Pete Hoekstra](#) (R-MI)
- [Mike Honda](#) (D-CA)

- [Robert Inglis](#) (R-SC)
- [Jay Inslee](#) (D-WA)
- [Dennis Kucinich](#) (D-OH)
- [George Miller](#) (D-CA)
- [Nancy Pelosi](#) (D-CA)
- [Denny Rehberg](#) (R-MT)
- [Dana Rohrabacher](#) (R-CA)
- [Tim Ryan](#) (D-OH)
- [Joe Sestak](#) (D-PA)
- [Christopher Shays](#) (R-CT)
- [Zach Wamp](#) (R-TN)
- [Joe Wilson](#) (R-SC)

Examples of Twitter Profiles

Number of Followers

- **Political**
President Obama
http://twitter.com/WhiteHouse   1,438,630

- **Popular Culture**
Ashton Kutcher
http://twitter.com/aplusk   **3,960,986**

- **Professional**
Chip Hughes
http://twitter.com/chiphughes   **39**

Information current as of November 11, 2009

Federal Agencies on Twitter

Number of Followers

- NIH
  http://twitter.com/NIHforHealth   **11,377**

- EPA
  http://twitter.com/greenversations   **7,267**

- FEMA
  http://twitter.com/femainfocus   **8,998**

- NIOSH
  http://twitter.com/NIOSH   **2,179**

- CPSC
  http://twitter.com/onsafety   **1,053**

Information current as of November 11, 2009

Why should I care about social media?

GSA Signs Deal with Social Media Websites

- In March 2009 the General Services Administration (GSA) signed terms of service agreements with four video-sharing and social networking sites:
    - Flickr
    - Vimeo
    - Blip.tv
    - YouTube

- **April 28, 2009 – GSA signs terms of service agreement with the social networking web site Facebook**

- *The new agreements make it easier for the federal government to provide official information to citizens.*

Facebook Uses

Promote professional conferences and meetings

- [Brownfields 2009 Conference](#)

  November 16-18, 2009 (New Orleans, LA)

- [2010 Good Jobs, Green Jobs National Conference](#)

  May 4-6, 2010 Washington, DC)

Agency and Professional Pages

- NIOSH Fan Page

- NIH Fan Page

- NIEHS Staff Fan Page

EPA Blog "Greenversations" – official blog of U.S. EPA

US EPA Region 10

Emergency Management Groups on Facebook

- Information Systems for Crises Response and Management (ISCRAM)

- Arkansas Tech University Department of Emergency Administration and Management
- Emergency Awareness at the University of Maryland
- FSU Emergency Management

- Michigan Emergency Management
- Mississippi Emergency Management Agency
- Braintree Emergency Management Agency
- Utah Emergency Management
- NYC Emergency Management

There are currently over 500 Emergency Management Group Pages on Facebook

Twitter Use in Emergencies

Mumbai Terrorist Attacks (November 2008)

- Twitter users on the ground sent out vital information, including emergency phone numbers and the location of hospitals that needed blood donations

- A group of Mumbai-based bloggers turned their Metroblog into a news wire service helping compile a list of the dead and injured

- The blog MumbaiHelp offered to help users contact family and friends and get information

Twitter Use in Emergencies

US Airways Flight 1549 (January 2009)

- Experienced multiple bird strikes and had to land in the Hudson River after takeoff from LaGuardia Airport in New York City

- A passenger on one of the ferries that rushed to help, took a picture of the downed plane as passengers were still evacuating and tweeted it via TwitPic before traditional media arrived at the scene

Twitter Use in Emergencies

Australian Country Fire Authority (February 2009)

- The Australian Country Fire Authority used Twitter to send out regular alerts and updates regarding the Victorian bushfires.

- The Prime Minister of Australia, Kevin Rudd, used his Twitter account to send out information on the fires, how to donate money and blood, and where to seek emergency help.

Twitter Use in Emergencies (March 2009)

- The Food and Drug Administration (FDA) recalled salmonella-tainted pistachio products

  - 3,000 people found out through the agency's Twitter feed, *FDARecalls*

- Red River was cresting at record flood levels in ND and MN

  - 2,600 people were getting updates delivered on the Federal Emergency Management Agency's (FEMA) Twitter feed, *FEMAinFocus*

  - FEMA's *tweets* informed followers of the locations of Red Cross shelters and how to care for pets during the crisis

Ft. Hood Shootings (November 2009)

- On November 5, 2009, a gunman opened fire in the Soldier Readiness Center of Fort Hood, TX —the most populous US military base in the world—located just outside Killeen, killing 13 people and wounding 30 others. The gunman, Major Nidal Malik Hasan, U.S. Army psychiatrist, was shot and seriously injured by a civilian police officer, Kimberly Munley, who was also wounded multiple times in the exchange of gunfire.

- The U.S. Army Twitter was able to provide news and updates about the event to the public and Soldiers around the world.

- Washington Post Twitter Aggregator - tracks breaking information about Thursday's Fort Hood shootings from news sources and military Twitter users.

How can the emergency response community use social media?

Facebook

- Can create a fan or member page

- Post up-to-date information on anything relevant – meetings and conferences, reports, events, outbreaks, disasters, etc...

- Provides another avenue to communicate with people

- Allows people to know what information (and misinformation) is being spread and allow the Agency to dispel rumors, correct misinformation, and gain the community trust

- Ask Facebook users what they would like to see on the page

- **Facebook has over 300,000,000 users**

Twitter

- Create a feed to send real-time information to emergency responders

- Responders would have a real-time timeline of what happened and when

- Responders would be able to pinpoint to the minute where people were, and what they were doing

- Responders can consult with outside experts to conduct real-time assessment of hazards, operations at the disaster site

Twitter Benefits for Emergency Responses

- Responders can perform hazard assessments from the real-time pictures taken at the scene and posted to the web

- Trainers developing modules would have real time knowledge of conditions on the ground

- Trainers can communicate where and when training classes are being held

- **KEY: Need to set up account and follow/add followers before an incident occurs**

Summary

- Opportunities for social media use in every day and emergency response operations

- Value is in the community collaboration and information sharing

- Key is to make sure the system is easier to use than the current one being used

- **REMEMBER: Social Media's value is derived from its users**

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