What is Social Media?
"Social media is an innovative way of socializing where we engage in an open dialogue, tell our stories and interact with one another using online platforms." (Associated Press, 2010)

Attributes and Objectives of Social Media
- Get message out faster
- Reach more people through another communication channel
- Arguably relatively low operating costs
- Reach people via mobile communication device
- Instant, highly scalable form of communication
- Direct from the source

Who Uses Social Media?
- 73% of adult internet users use social networking sites (Pew Research Center, 2013)
- 74% of people with disabilities use social media (Wireless RERC, 2013)
- 98% of states use social media to disseminate emergency information (Wireless RERC, 2013)

Social Media Applications
- YouTube
- Facebook
- Pinterest
- Vine
- Twitter
- Instagram
- Twitpic

Increasing Usage From All Ages
The fastest growing social media user group = Baby Boomers

Source: Pew Internet Survey, 2013

Maximize Reach with Social Media
Cannot reach everyone with social media, but should be used together with other channels of communication to maximize reach within the community.
Facebook
• Started in 2004
• Social networking site
• 1.23B+ active users
  – Approximately 20% from U.S. (Dec. 2013)

Twitter
• Started in 2006
• Microblogging and social networking service
• 140 character limit
• 240M+ active users, 500M tweets a day
  (Dec. 2013)

YouTube
• Launched in 2005
• Watch and share originally-created videos
• Over 3 billion videos viewed a day
• More video is uploaded to YouTube in one month than the 3 major U.S. networks created in 60 years

Vine
• Launched in January 2013 by Twitter
• 6-second, looping video sharing app
• 40M+ users (Aug 2013)

Instagram
• Founded in 2010
• Mobile application for sharing photos
• 2 million users within first 3 months
  – 150 million users (Dec. 2013)
• 55M photos uploaded daily (Dec. 2013)

TwitPic
• Launched in 2008
• Share pictures and videos instantly
Social Media for Natural Disaster Response and Recovery

Pinterest

- Launched in March 2010
- 70M+ active users (Jul 2013)
- Pin-board style photo sharing
- Users can browse boards, “re-pin” content
- 80% of total pins are repins (SocialMediaToday, 2013)

Google+

- Launched June 2011
- Certain growth through integrated login and features
- 540M+ active users (Oct. 2013)

Challenges of Social Media and Public Information

- People expect 2-way communications
- Set expectations if communications will not be interactive
- Considerations must be made to reach vulnerable populations
- Connect with organizations that communicate directly with vulnerable populations
- Inaccurate information can spread quickly on social media
- Link back to official sources of information
- Difficult to reach population not connected to social media
- Social media is used as an additional tool to supplement traditional channels of communication

How is Social Media Used in Disaster Management?

- Prepare public for emergencies
- Keep public updated with news and information
- Monitor for help needed
- Alert and warn public
- User feedback via messages, wall posts, polls, etc.
- Data Collection
- Relief and recovery efforts
- Integrated Approach
  - Based on communications strategy
  - Closely engages with key government agencies, partners, and community
  - Uses interagency coordination to provide regular content to City and County Facebook pages
  - Promotes agency personality through branding and photos

Monitoring on Twitter: Hawaii Tsunami Warning

1. Ginafontillas tweets message:

2. Tinamahina re-tweets message @HI_CivilDefense:

3. HI_CivilDefense gets tweet and replies to both tweeters:

- Hawaii Civil Defense on Twitter
Smart Phone Application

**SF Heroes**

- Leverages social reward mechanisms
- Inspires preparedness by tying rewards and social incentives to meaningful real-life activities.
- Educates and motivates public preparedness
- Connects with Facebook, Twitter, other social media

Twitter Alerts

- All public safety organizations can apply for Twitter Alerts: [http://about.twitter.com/products/alerts/enroll](http://about.twitter.com/products/alerts/enroll)

Recovery Efforts for Washoe Drive Fire

**Department of Homeland Security on Twitter**

- *2011 Hurricane Irene*
  - Made landfall in Puerto Rico, North Carolina, New Jersey
  - Severe damage and flooding in New Jersey and Vermont
**Social Media for Natural Disaster Response and Recovery**

**Vermont Emergency Management**
Alerts, Updates on Twitter and Facebook

Vermont Emergency Management on Twitter

Vermont Emergency Management on Facebook

**City of Trenton, New Jersey**
Information Exchange via Facebook

**National Hurricane Center**
on Facebook and Twitter

**Red Cross Engages with Community via Facebook**

**Citizens Communicate with Each Other via Red Cross’s Page**

**Weather Channel on Twitter and Facebook**
Wells Fargo Communicates with Customers

Tweets from Wells Fargo Twitter page
Updates on Wells Fargo Facebook page

Significant Trends for Use in Disaster Management

- Redefining risk and crisis communications
- Expanding role of citizen journalism
- Enabling geographically-targeted alerts and notifications
- Using crowdsourced data
- Spawning Volunteer Technical Communities (VTC)
- Empowering rapid data visualization

Sandy: By the Numbers

- 10 Instagram photos per second (at peak)
- Top-shared terms on Facebook
  - “We are ok”
  - “Power” - lost power, have power, no power
  - “Damage”
  - “Hope everyone is ok”
  - “Trees”
- 20M+ tweets sent between Oct. 27-Nov. 1

Managing Expectations

- Broadcast role
  - Manage presence on social media platforms
  - Work within guidelines of published communication plan
- Interactive role
  - Monitor and respond to emergency requests
    - 76% of people expect help to arrive within 3 hours of posting to social media (Red Cross survey, 2010)

Establishing Online Identity

- Visual signature
- Organizational personality
- “Voice”
- Consistency

Misinformation and Corrections

- Monitor
- Quickly correct
- State and explain
- Alert command
- Viral reality
- Recognition
Building Credibility

- Build a reputation
- Create a Presence
- Stay Involved and Current with Information
- Provide access to first source of information

Facebook Structure

Facebook Pages

- Other users can become Fans and "Like" your Page
- Limited access to individual profile pages on your Organization Page
- Allows the ability to invite Friends

Why Create a Facebook Page?

- Can maintain a Fans list
- Update your status and broadcast messages (which gets shared with your Fans)
- Interact with the public via your Page
- Share pictures, videos, discussion board, application, wall posts, and groups

Twitter Earthquake Map

Using Twitter

- Simple, open, fast, searchable, topic-based platform
- Uses short messages: 140-character limit
- Enables following other users' messages
- Enables building a following: Have other people follow you
- Send direct private messages
- Can repost other users' public messages
- Can reply to a public or private message
- Can create a specific event using a hashtag (#)
What are Hashtags ("#" symbols)?
- Community-driven convention for adding additional context
- Used to categorize tweets according to a specific keyword or topic
- Anyone can create a hashtag
- Can occur anywhere in the Tweet
- Used before relevant keywords in their Tweet

Hashtags: Typhoon Haiyan in November 2013

Tools to Research on Twitter
- Trendsmap
  - http://trendsmap.com
- Twitterfall
  - http://twitterfall.com
- Klout
  - http://klout.com

Advanced Twitter Search

Hootsuite & TweetDeck

Crowdsourcing
Volunteer Technical Communities
VTC Examples

- Crisis Mappers
- Crisis Commons
- Humanity Road
- Virtual Operations Support Teams

VTC Case Study: Crisis Mappers

The world's largest crisis mapping hub

Leveraging mobile platforms, computational linguistics, geospatial technologies, and visual analytics to power rapid crisis response

The Network catalyzes communication and collaboration between and among crisis mappers with the purpose of advancing the study and application of crisis mapping worldwide.

Launched in 2009

Accessed in 191 countries

Virtual Operations Support Teams #VOST

- Social media monitoring, curation, and engagement on large-scale
- Globalized teams of trusted agents provide support to emergency managers and EOC personnel
- Force multiplier for small agencies and/or agencies with limited resources/capabilities

Social Media Reporting and Monitoring

Open Source software to collect, visualize and map data (reports)

Free, hosted, Ushahidi

Platform to help filter and make sense of information. Works with Ushahidi

Example Implementations

http://oilspill.labucketbrigade.org/

Example Implementations (cont.)

http://vtirene.crowdmap.com/
Example Implementations (cont.)

http://stlouistornado.crowdmap.com/

FEMA Smart Phone App
“Disaster Reporter” Feature

• Take and submit GPS photo reports
• Displayed on public map

http://www.fema.gov/disaster-reporter

Thank You!