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# **Warning Systems, Risk Communication and New Social Media:** How Technological Innovation is Changing the Landscape for Disaster Communications

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## Presentation Outline

- What is social about social media?
- How does social media compare to legacy communications systems?
- What do we know about social media use in disasters?
- What myths are associated with social media in disasters?
- What concerns are associated with social media in disasters?

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## Disasters and social media: some recent examples



2007 CA Wildfires



Sichuan China EQ,  
May 2008



US Airways  
Crash, Jan 2009

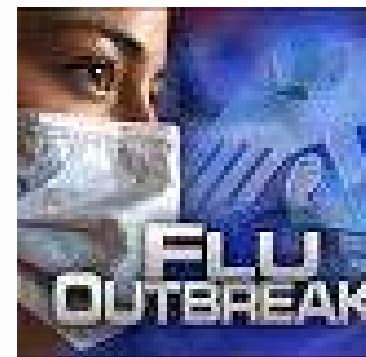


Australian Bushfires  
Jan 2009



Red River Flood  
March 2009

Terrorism in Mumbai,  
Dec 2008



H1N1 Flu Outbreak  
April 2009

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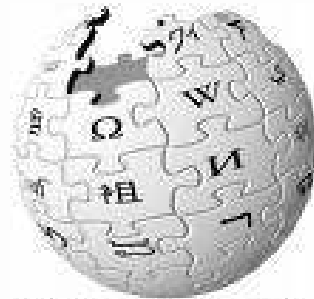
## What is social about social media?

twitter

Google<sup>TM</sup>  
Maps

digo

LinkedIn



WIKIPEDIA  
*The Free Encyclopedia*

facebook

Ning

flickr

myspace.com  
a place for friends

You Tube

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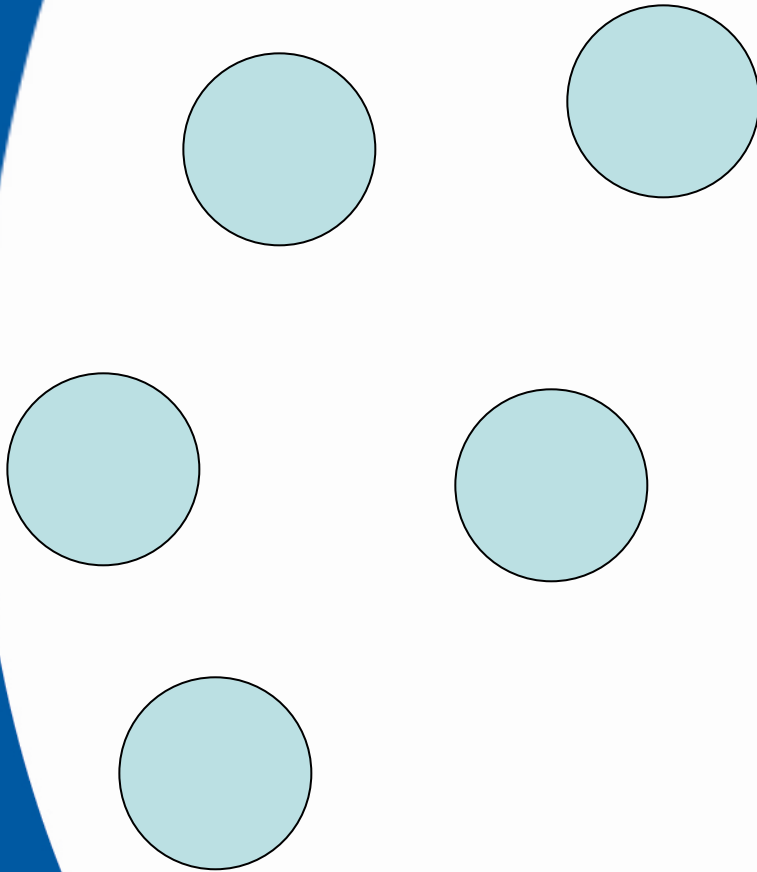


## **Characteristics of social media**

- Collaborative
- Decentralized
- Lateral
- Networked
- Community driven

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## Legacy communication systems



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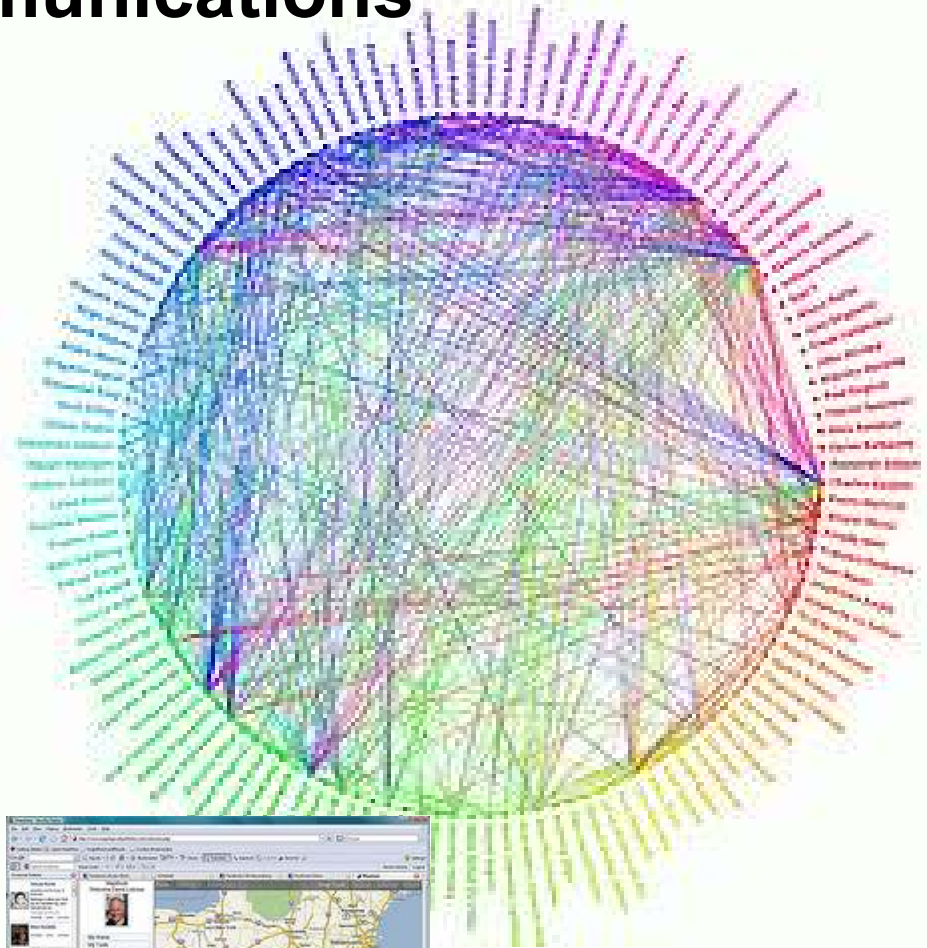
# Hierarchical communications





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# Networked communications



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## **Communication systems are changing**

- Greater access to information
- More sources of information
- Faster sharing
- Networked communications
- Public participation; no longer dependent on top-down communications

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## What does this mean?

- What do we know about *social behavior* and disaster communications?
- What do we know about *social media use* and disaster communications?
- How does this apply to changing communication systems?

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## **Some things to remember...**

- People don't change
- Technologies change
  
- We can predict how people will use technology and respond to disaster communications due to our research on social behaviors in disaster.

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## **Empirical research**

- 2007 Virginia Tech School Shooting
- 2007 Southern California Wildfires
- 2008 Democratic National Convention

Anecdotal accounts from other recent disasters...

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## Virginia Tech School Shooting

- April 16, 2007
- Blacksburg, VA
- Two events: 7:15 am & 9:30 am
- 1 shooter, 32 deaths, multiple casualties





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## 2007 Southern California Wildfires

- Started in Malibu, CA, October 20, 2007
- Over 20 blazes ignited from Santa Barbara to Mexico border
- Destroyed nearly 1500 homes
- Burned over 500,000 acres of land
- Massive evacuations



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## Democratic National Convention 2008

- National Special Security Event
- International attention
- Significant probability for public disruptions



Field research to examine the processes developed by public officials to access, verify, and integrate information obtained via social media

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## **Decentralized communication is not disorganized communication**

- Organized
- Self-correcting
- Accurate
- Concentrated

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## **Social media is a source of information about the public**

- Can observe milling online
- “Chatter” can lead to situational awareness
- Misinformation has value as well

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## **Social media use is a benefit to the disaster affected community**

- Online social convergence
- Seeking and sharing information
- Organizing resources
- Coping and mental health

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## **Social media is another channel to disseminate information**

- To push information out
- To provide up-to-the minute updates
- Not reliant on major media



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## **Social media use is becoming routinized in disaster**

- Distributed technology users create mashups
- Local technology users share local information

## **Social behaviors offline and on...**

Common in the immediate aftermath of disasters

- Convergence
- Altruism

Uncommon in the immediate aftermath of disaster

- Anti-social behaviors
- Panic, looting, malicious attacks

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## **Dangers of disaster myths**

- Amplified risk
- Detoured resources
- Misappropriated personnel

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## **What concerns should be raised?**

- Awareness, knowledge, access
- Policy
- Security
- Privacy

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## **Social media is changing the communications landscape**

- Great benefits if used it to its fullest potential
- Possibility of creating transparency and interactivity
- Can lead to more resilient communities

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## Questions? Comments? Feedback?

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