

# Crisis Informatics

**Leysia Palen**

Project EPIC

University of Colorado Boulder



AP/Jae C Hong



FEMA photo/Ed Ahl



FEMA photo/Andrea Booher



FEMA photo/Booher

# Mass Convergence

People  
Resources  
Information



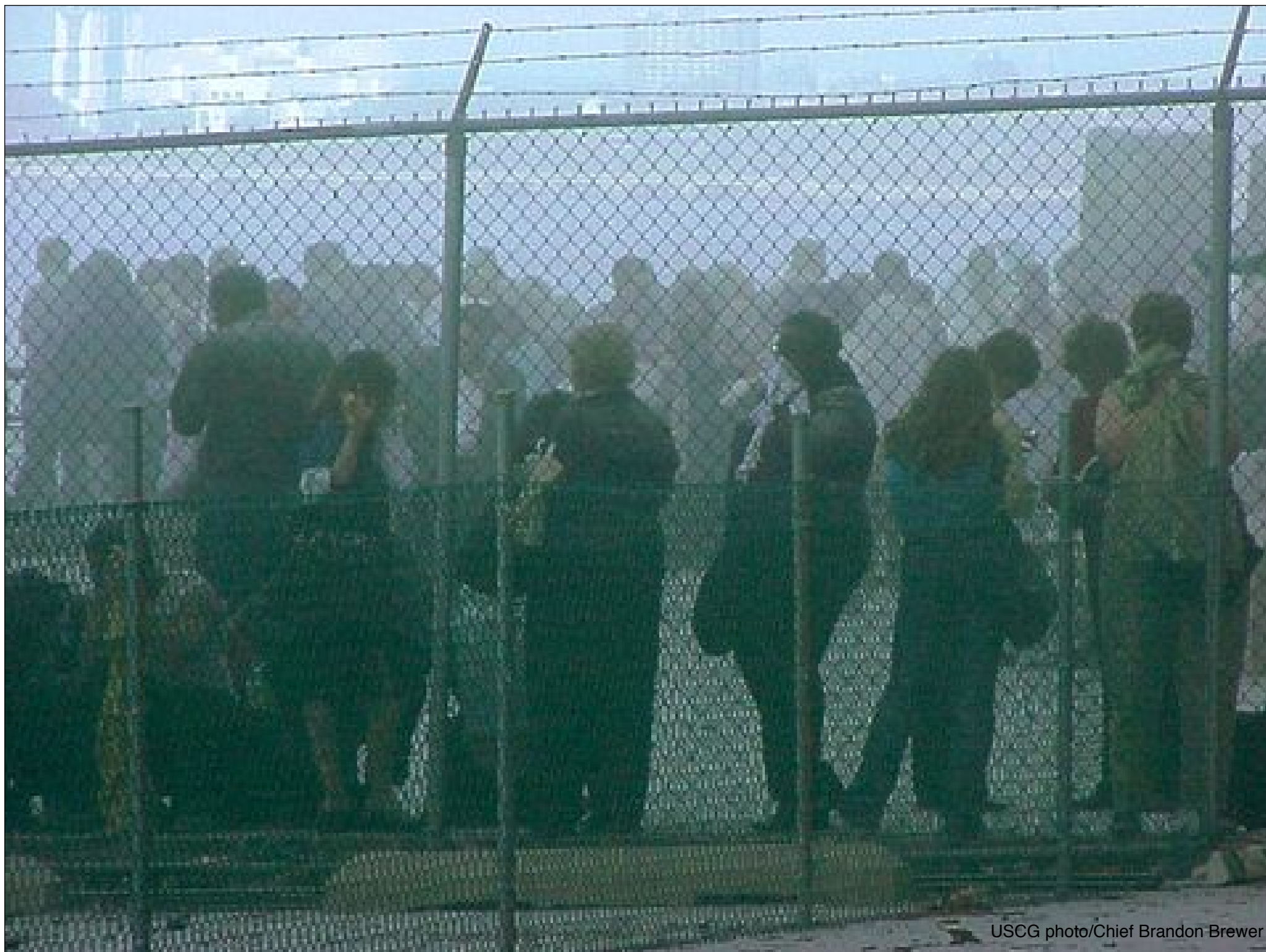
# OFFICIAL RESPONSE “Formal”



# PUBLIC RESPONSE “Informal”







USCG photo/Chief Brandon Brewer





# PUBLIC RESPONSE “Informal”





## OFFICIAL RESPONSE “Formal”



## PUBLIC RESPONSE “Informal”



“information interface”

# Two Forms of Public Response:

*Spontaneous*  
*Solicited*



@pulsemusic\_t

Satti March 15, 2011

Tweet

4



福島市 ヨークベニマル太平寺店 レジ待ち。惣菜、パンまだあります。水、米、ラップ無し。野菜、魚に肉が想像以上に豊富にありました。 #Fukushima

Login to leave a comment





@pulsemusic\_t

Satti March 15, 2011



福島市 ヨークベニマル太平寺店 レジ待ち。惣菜、パンまだありま、ラップ無し。野菜、魚に肉が想像以上に豊富にありました。 #F

[Login](#) to leave a comment

Fukushima city,  
"Youkubeni" (?)  
mall, Peace  
Temple store,  
waiting in the  
checkout line.  
There's no bread  
yet. As for daily  
items, (we are)  
without water,  
rice and plastic  
wrap. There used  
to be more than  
enough, an  
abundance, of  
everything you  
could imagine,  
from vegetables  
to fish and meat.

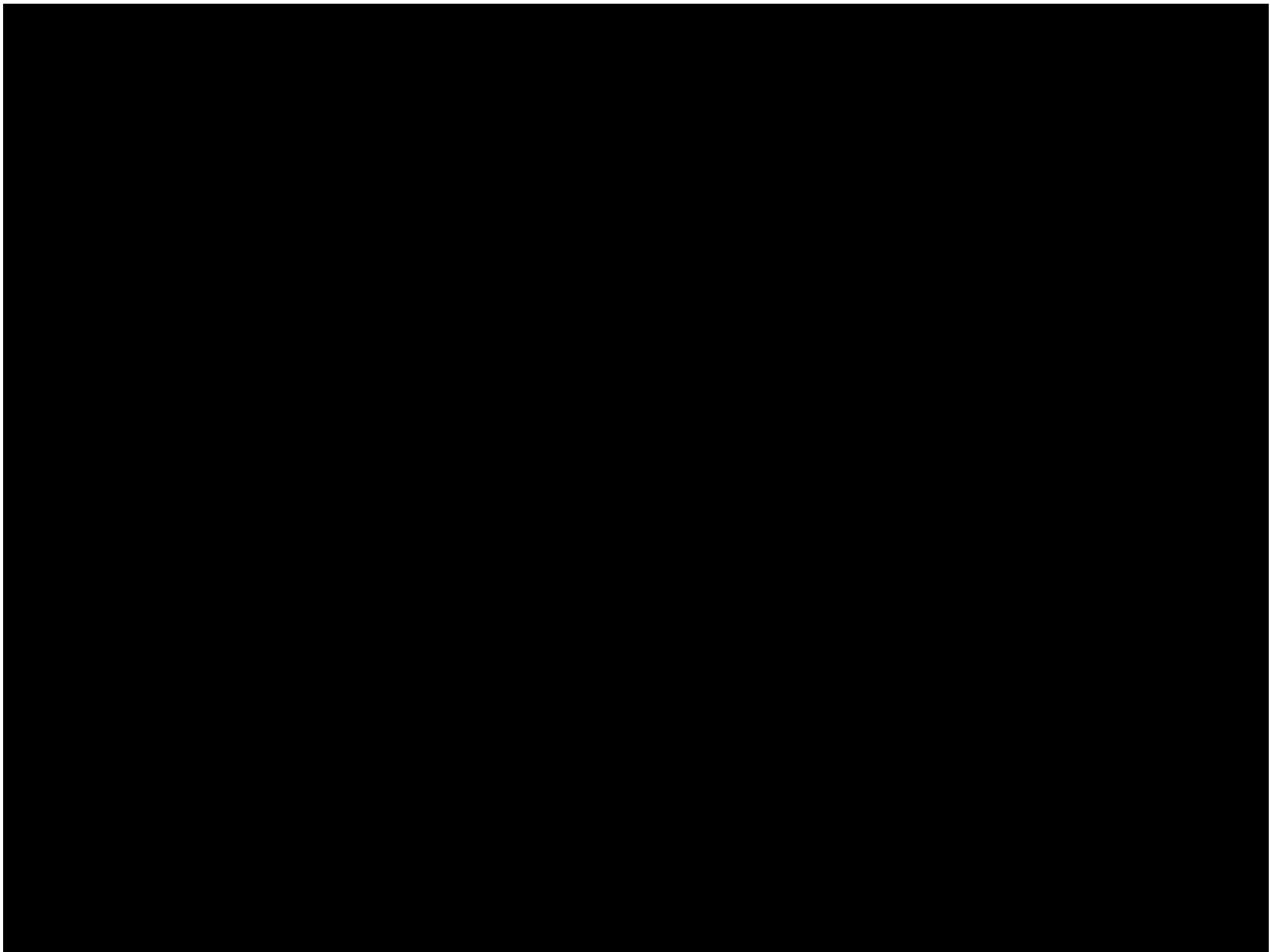


FEMA/Andrea Boomer

# Self-Organization of Digital Helper Networks

*Geeks for Haiti*  
CrisisCamps



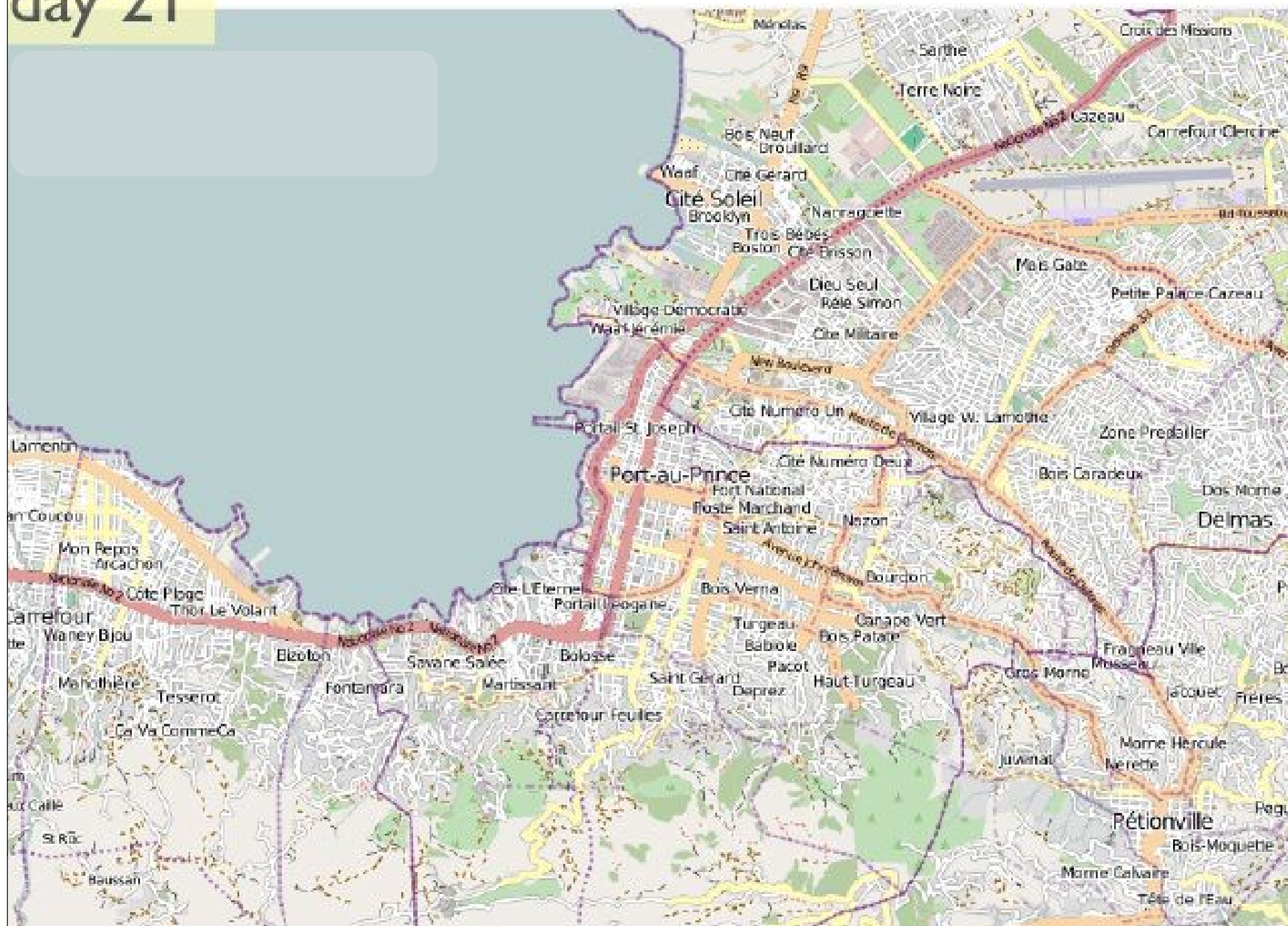


day 0



**Humanitarian Open Street Map: Haiti**

day 21





*Red River Flood Community Sandbagging Effort, 2009*



*FEMA/Andrea Booher*

A large crowd of people is gathered in a stadium, working together to fill sandbags. The stadium seats are visible in the background, and a yellow bulldozer is parked near the back. The people are mostly wearing casual clothing, and some are wearing hats. They are standing around large piles of sand and sandbags, some of which are stacked on pallets. The scene is busy and organized, with people working in small groups. The text "What are good disaster-based crowdsourcing tasks?" is overlaid on the image in a bold, black font.

**What are good disaster-based  
crowdsourcing tasks?**

*FEMA/Andrea Booher*





FEMA/Jocelyn Augustino

# What's Ahead?

Crises are Places of Innovation





Howard Greenblatt/FEMA

FEMA/Howard Greenblatt

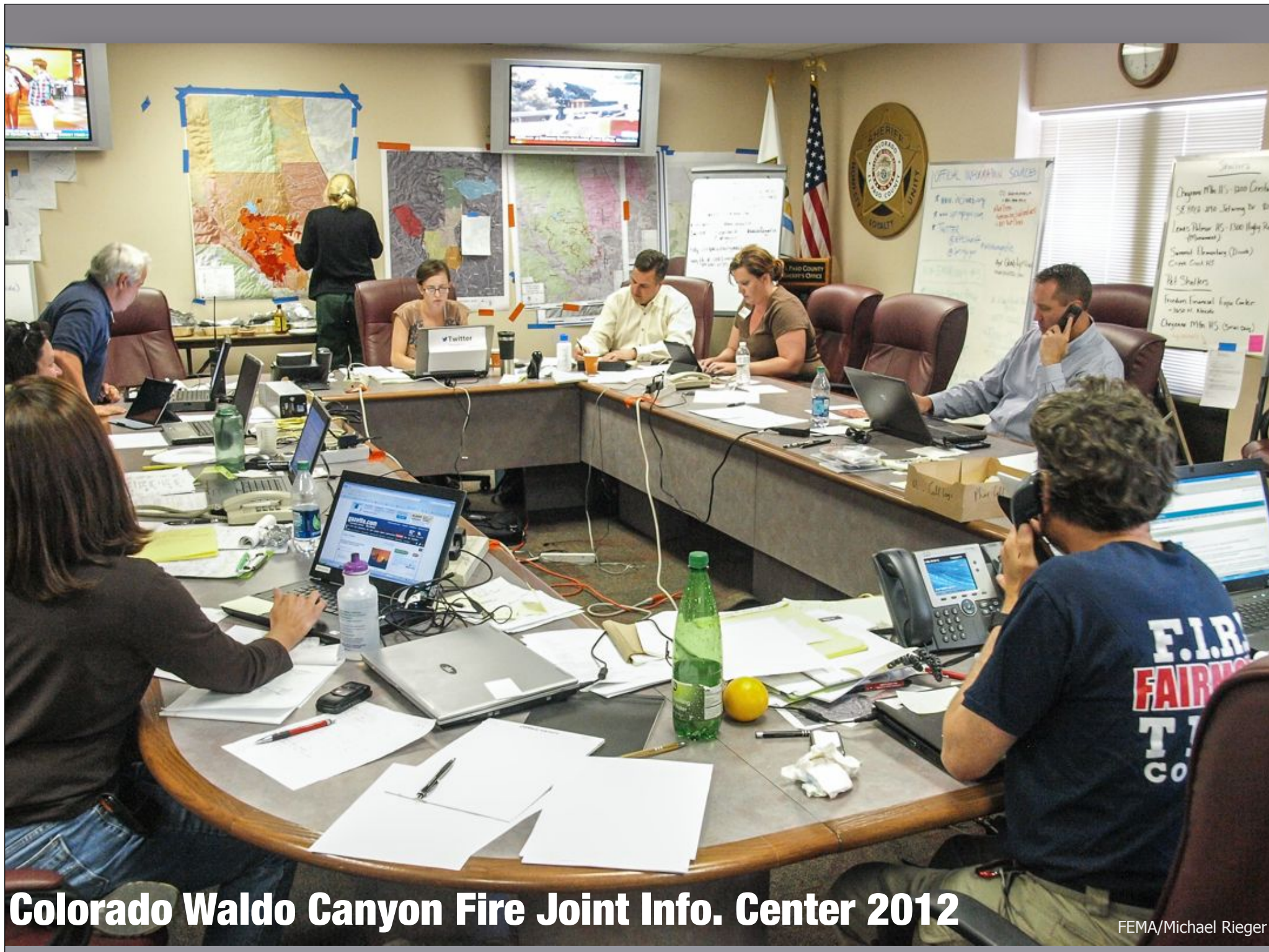
# Fundamental Institutional Shifts in Practice & Policy





Leysia Palen





**Colorado Waldo Canyon Fire Joint Info. Center 2012**

FEMA/Michael Rieger





**Astrodome Shelter, Katrina Aftermath**

FEMA/Andrea Booher

Perilous but Promising:  
CS Research is Deeply Consequential



# Thank you

National Science Foundation

Project EPIC Team

University of Colorado Boulder

## Contact

<http://epic.cs.colorado.edu>

 @palen

@epiccolorado



AP/Jae C Hong