

# Social Media, Public Emergencies & Disability

John Morris Jim Mueller Salimah LaForce

Wireless RERC February 28, 2013

# **Topics Covered**

- Introduction: Wireless RERC
- Overview: Access to Emergency Alerts & Information
- Research Methodology/Respondent Profile
- Survey Findings

 Considerations for Accessible Emergency Communications

## Introduction

The mission of the Wireless RERC is to research, evaluate and develop innovative wireless technologies and products that meet the needs, enhance independence, and improve the quality of life and community participation of people with disabilities.

Funded by



Partnership between

Georgialnstitute of Technology





Research

**User-Centered Research** 

Policy Approaches to Accelerate Access to Advanced Wireless Technologies

#### **Development**

The App Factory

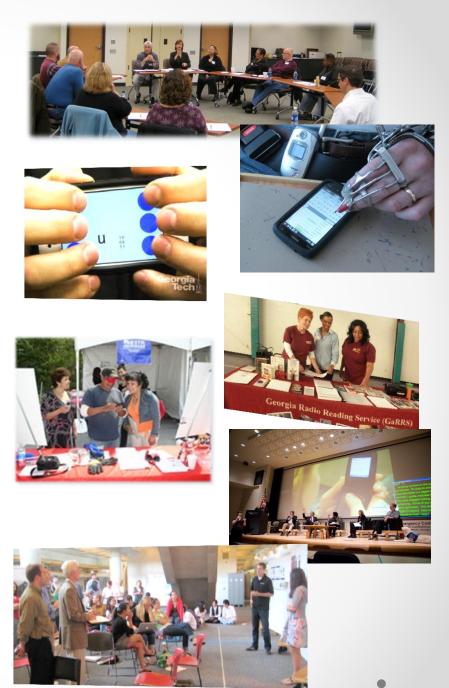
Emergency Lifelines on Wireless Platforms

#### Training

Promoting Awareness of Access and Usability Needs for Wireless Devices

State of the Technology Conference

Building Research Capacity in Wireless Accessibility and Usability





**Overview Access to Emergency Alerts & Information** 

### Access to Emergency Information & Alerts Traditional Flow of Information

## National Systems

- Emergency Alert System (EAS)
- Commercial Mobile Alert System (CMAS)
- Disability Access Policy







Image courtesy of Patrice Cloutier, Crisis Communications Specialist

"Rather than trying to convince the public to adjust to the way we at FEMA communicate, we must adapt to the way the public communicates ... We must use social media tools to more fully engage the public as a critical partner in our efforts."

~ Craig Fugate, Administrator of FEMA

## Official Use of Social Media Trending up

- 98% of States use SM to disseminate emergency information
  - Twitter 88%
  - Facebook 59%
  - YouTube 29%





## Official Use of Social Media Trending up

- 73% of Cities use SM to disseminate emergency information
  - Twitter: 59%
  - Facebook: 59%
  - YouTube: 14%







### **Research Methodology/Respondent Profile**

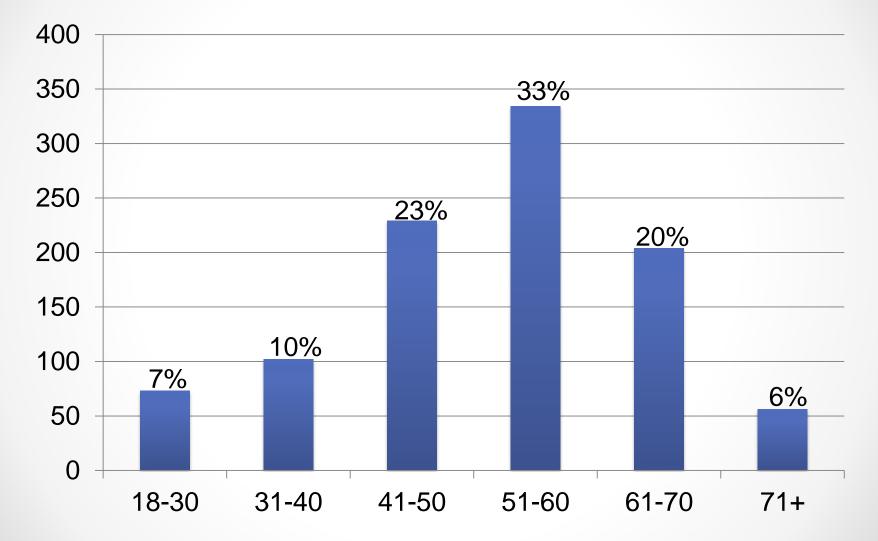
## **Research Methodology**

- Nationwide survey of people with disabilities
- November 2012-January 2013
  - 1. Contacting 911
  - 2. Public Alerting Methods
  - 3. Using social media during public emergencies

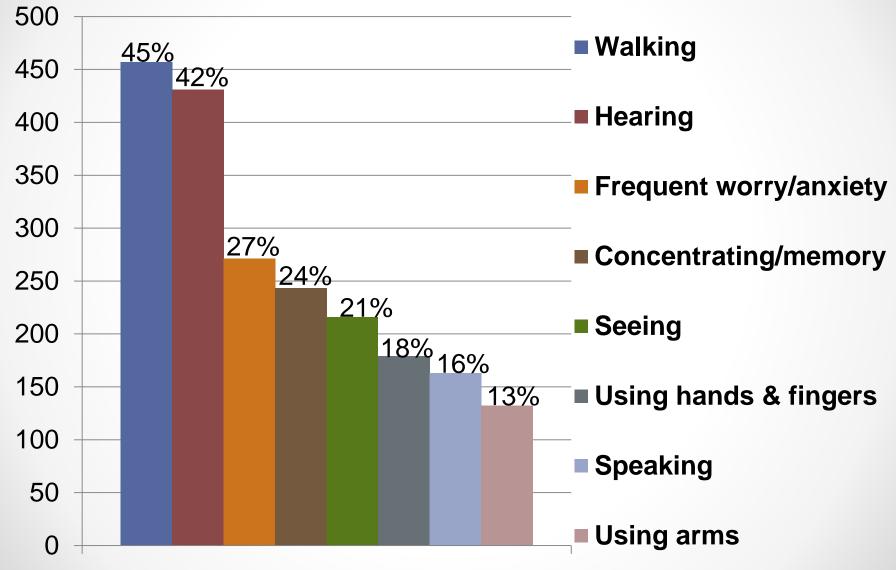
#### **Respondent Profile**

Total number of respondents	1538
Number of respondents with disability	1020
Age range	19-98
Age average	52
Not declaring a disability	370

## **Distribution by Age**



## **Distribution by Disability**



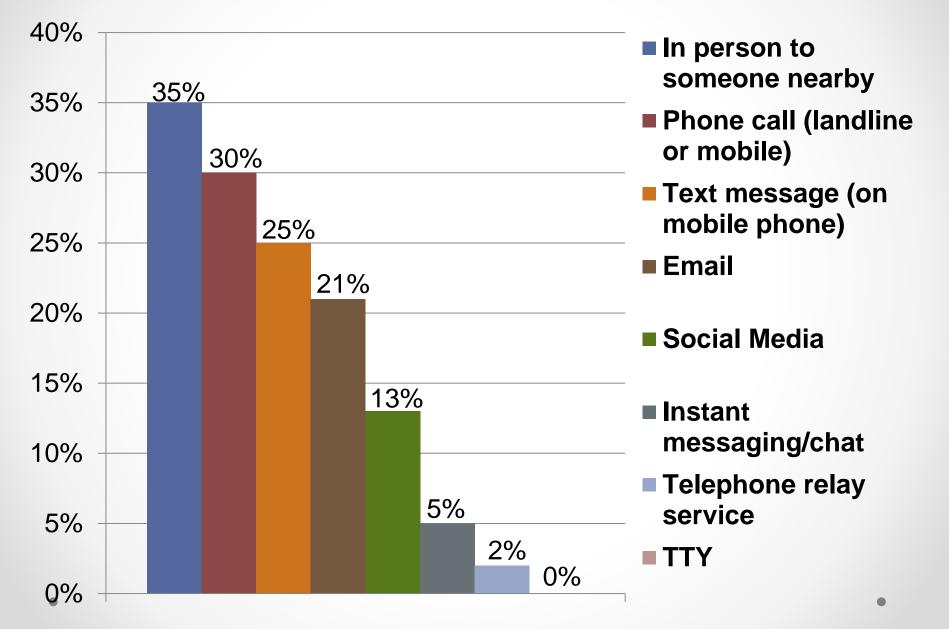


## **Survey Findings**

## **Alerting Methods**

Method	Percent
Television	55%
Text message	31%
Email	31%
Phone call (mobile or landline)	23%
Sirens	22%
Radio (regular)	21%
Observation	20%
Internet news	19%
NOAA weather radio	14%
Social Media (emergency management)	13%
Direct contact w/someone nearby	13%
Social Media (personal network)	11%
Smartphone App	10%
Instant message/chat	2%
personal alerting device	2%
ТТҮ	0.03%

## **Alert Sharing Methods**



## **Social Media Usage**

How often do you access social media on the following devices?							
			Less		3-6		
		Less than	than		times		
	Do not use	once a	once a	1-2 times	per	Every	
	on device	month	week	per week	week	Day	
Desktop							
computer	24%	13%	8%	10%	9%	37%	
Laptop							
computer	25%	11%	8%	10%	11%	35%	
Tablet							
computer	50%	15%	4%	5%	7%	19%	
Cellphone	31%	10%	4%	8%	7%	41%	

#### DAILY use of Social Media on Electronic Platforms (% of respondents with each disability)

	Blind	Low Vision	Deaf	НОН	Anxty	Cog	Spkng	Arms	Dxtrty	Wlkng
Desk-										
Тор	24%	41%	44%	36%	37%	33%	38%	43%	36%	33%
Lap-										
top	23%	39%	30%	35%	40%	36%	38%	36%	35%	36%
Tablet	9%	25%	28%	25%	22%	17%	23%	17%	22%	14%
Cell	23%	41%	62%	37%	48%	40%	40%	35%	37%	33%

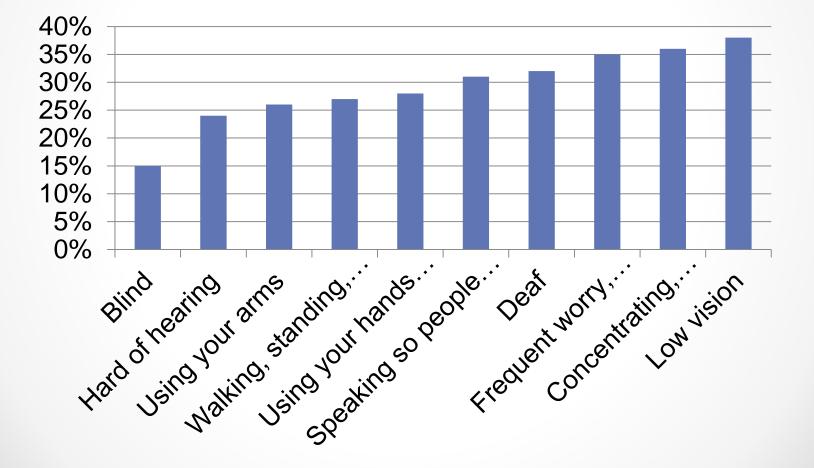
- Almost all use cellphones most often
- Tablets are used the least by all disability types

#### Social media outlets used by respondents with disabilities to receive & verify public alerts

	Received alert (2010-11)	Received alert (2012-13)	Verified alert (2010-11)	Verified alert (2012-13)
Facebook	11.6%	32%	8.6%	24%
Twitter	4.6%	10%	2.5%	8%
YouTube	1.3%	5%	1.0%	3%



- Facebook and Twitter are most commonly used to share the alert.
- 28% of respondents have shared information about an emergency in progress via social media



### Receiving, Verifying, & Sharing Public Alerts Sensory

	Blind	Low Vision	Deaf	НОН
Received				
Government SM	11%	14%	18%	11%
Received Personal				
SM	12%	12%	17%	8%
Verified Government SM	5%	11%	13%	8%
Verified Personal SM	8%	6%	11%	E0/
SIVI	6%	0%	11%	5%
Forwarded	16%	14%	16%	5%

### **Receiving, Verifying, & Sharing Public Alerts**

#### Anxiety, Cognitive, Speaking

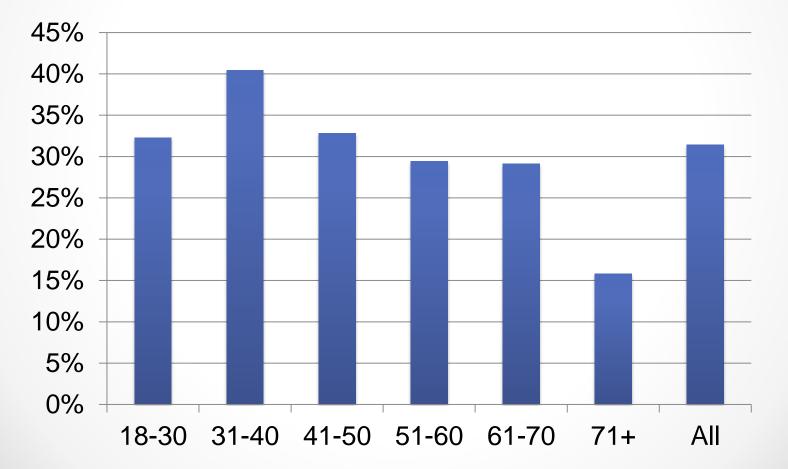
	Anxiety	Cognitive	Speaking
Received Government SM	13%	12%	15%
Received Personal SM	13%	11%	15%
Verified Government SM	11%	10%	12%
Verified Personal SM	7%	4%	10%
Forwarded	16%	14%	18%

### Receiving, Verifying, & Sharing Public Alerts Physical

	Arms	Dexterity	Walking
Received Government SM	11%	15%	11%
Received Personal SM	15%	14%	9%
Verified Government SM	11%	14%	8%
Verified Personal SM	8%	9%	5%
Forwarded	13%	13%	10%

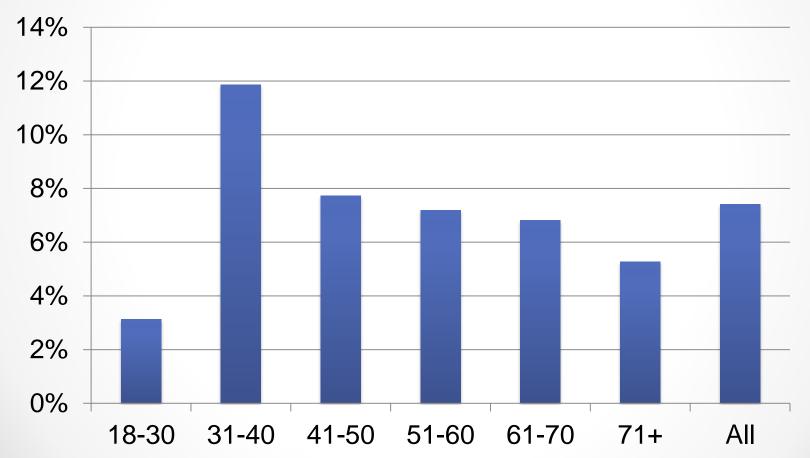
#### **Active Engagement on Social Media by Age**

Percentage of social media users with a disability who have shared information about an emergency in progress on social media



#### **Active Engagement on Social Media by Age**

Percentage of social media users with a disability who have had a 2-way conversation with emergency response personnel





### **Considerations for Accessible EC**

## **Access Considerations**

### Technology

- Accessible formats to a variety of devices and platforms
- Integration of social media into existing EC systems

### Training and Education

 Integrate social media into inclusive planning, exercises and simulations

### Policy and Practice

- Create and share best practices
- Be consistent
- Make official

"One of the challenges we face as a nation is ensuring not only that our technological prowess empowers ALL Americans to lead better and more productive lives, but also that we harness these tools to preserve and protect the lives, property, and public safety of ALL citizens by making them universally accessible and usable."

~David Furth, FCC





## Contact: www.wirelessrerc.org



join our



Linked in. Accessible Technology Policy Group

#### John Morris: john\_morris@shepherd.org

Jim Mueller: jlminc1@verizon.net

#### Salimah LaForce: salimah@cacp.gatech.edu

The Rehabilitation Engineering Research Center for Wireless Technologies is funded by the **National Institute on Disability and Rehabilitation Research** of the **U.S. Department of Education** under grant number H133E110002. The opinions contained in this presentation are those of the grantee and do not necessarily reflect those of the U.S. Department of Education.