

# Public Access ICT and Disaster Management

**TASCHA Talk**

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## RESEARCH QUESTIONS

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- What is the role of public access to ICT through libraries and telecenters in emergency situation
- What additional non-ICT related roles do public access venues play?
- How do citizens use ICT in an emergency context?

Libraries, Telecenters & Citizens = non-official first-responders

# WHAT IS CRISIS INFORMATICS?

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- Reframes emergency response as a “socially-distributed information system.” (Palen et al. 2010)
- Emphasizes the role of citizen generated information and how it aligns/interacts with official entities
- Analyzes citizen-to-citizen communication in the context of a broader socio-technical system
- Considers the temporal, spatial, and changes in social arrangements in crisis

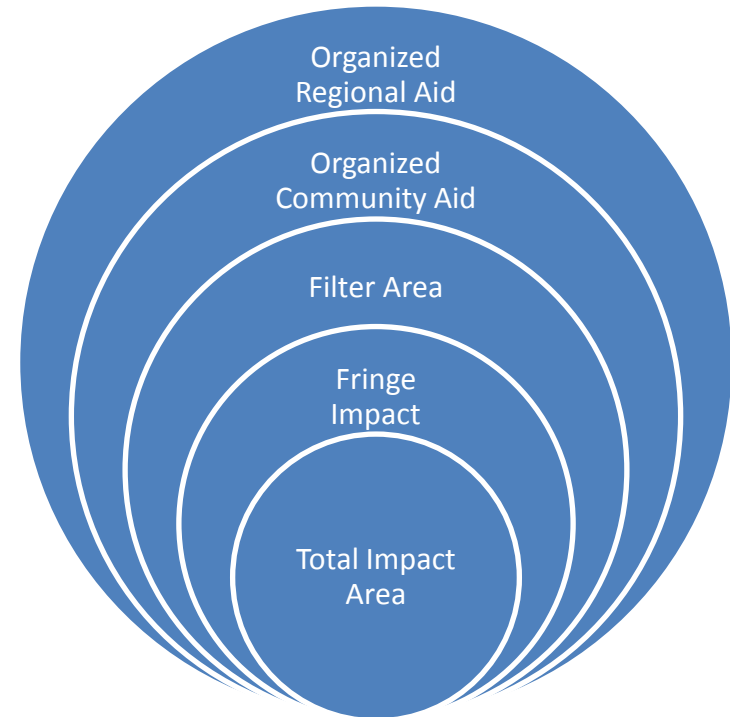
# WHAT IS CRISIS INFORMATICS?

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## Socio-Temporal Stages of a Disaster

<b>Stage 0: PRE-DISASTER</b> State of social system preceding point of impact
<b>Stage 1: WARNING</b> Precautionary activity includes consultation with members of own social network
<b>Stage 2: THREAT</b> Perception of change of conditions that prompts survival action
<b>Stage 3: IMPACT</b> Stage of "holding on" where recognition shifts from individual to community affect and involvement
<b>Stage 4: INVENTORY</b> Individual takes stock, and begins to move into a collective inventory of what happened
<b>Stage 5: RESCUE</b> Spontaneous, local, unorganized extrication and first aid; some preventive measures
<b>Stage 6: REMEDY</b> Organized and professional relief arrive; medical care, preventive and security measures present
<b>Stage 7: RECOVERY</b> Individual rehabilitation and readjustment; community restoration of property; organizational preventative measures against recurrence; community evaluation

## Spatial Disaster Zones



# INFORMATION WORLDS THEORY

Burnett & Jaeger 2010

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- Based on Chatman (Small Worlds and Normative Behavior) & Habermas (Lifeworlds)
- Explores information behavior in terms of all the intertwined levels of society:
  - 1) Small worlds of everyday life; 2) Mediating institutions (libraries, news agencies, etc); 3) Social and political forces that shape society
- Analytical levels:
  1. Social norms: shared sense of appropriate behavior
  2. Social types: roles that define actors and how they are perceived
  3. Information value: shared sense of importance of information
  4. Information behavior: full range of activities related to information
  5. Boundaries: points where information worlds interact

# ROLES OF PUBLIC ACCESS TO ICT IN LIBRARIES & TELECENTERS

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## The technology component

- Locating & interacting with family and friends
- Downloading/Filling government forms
- Checking updates about conditions of the affected region.
- Locating information on the status of their homes and work places

## The social component

- Creating & distributing preparedness information
- Establishing emergency operations centers
- Providing physical aid (food, water, tarps, shelter)
- Assisting with completion of government forms
- Cleaning up the damage after the disaster.

# CITIZEN GENERATED INFORMATION IN EMERGENCY CONTEXT

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Information behavior and types of ICT use

1. Safety & Welfare (I'm okay, Are you okay)



Citizens in Chile locating family members | Mobile Telecenter

Source: CDI Europe

# CITIZEN GENERATED INFORMATION IN EMERGENCY CONTEXT

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Information behavior and types of ICT use

2. Filling out government forms and insurance claims



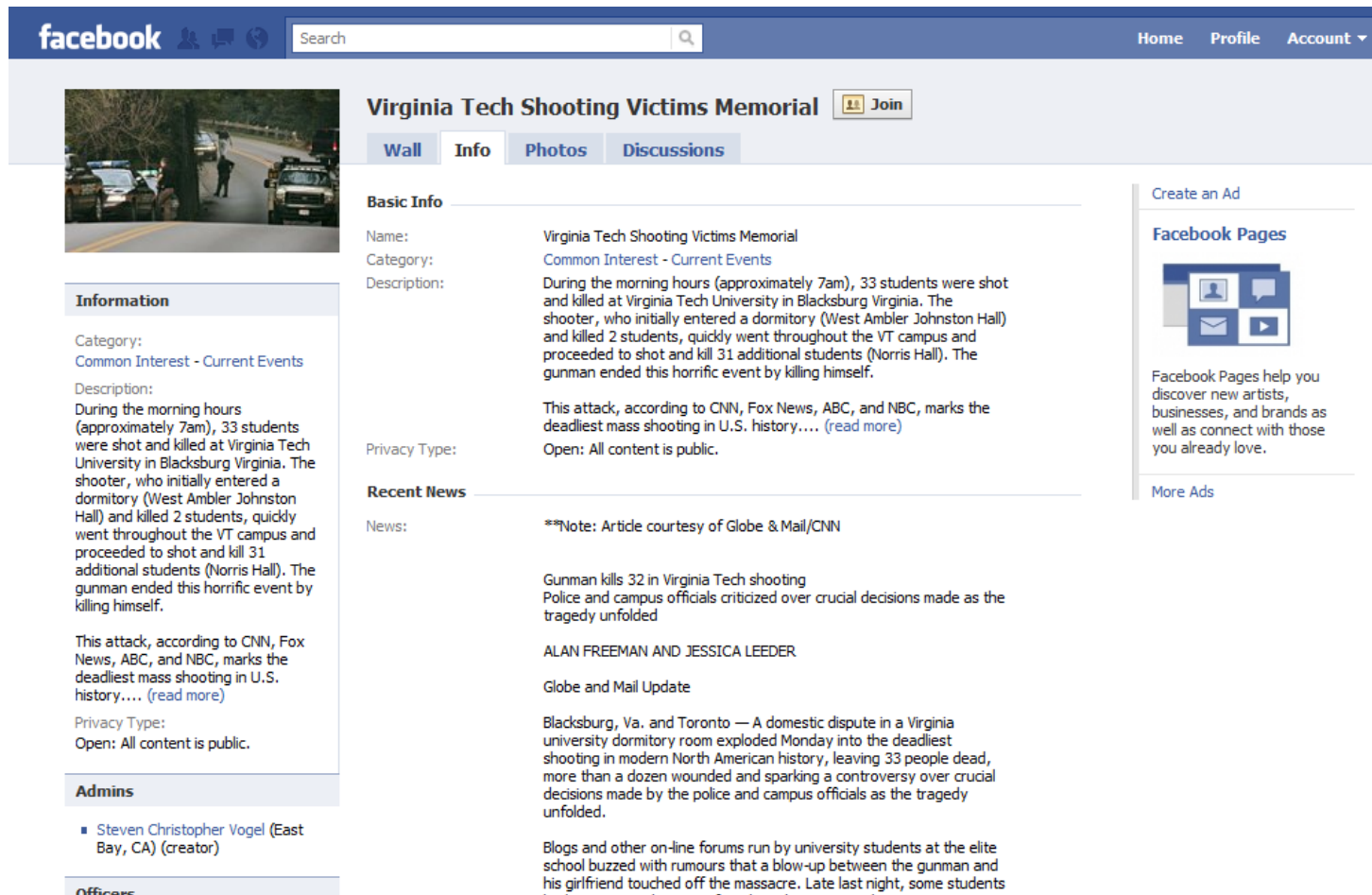
Astrodome Library after Hurricane Katrina  
Source: Beth Patin



# CITIZEN GENERATED INFORMATION IN EMERGENCY CONTEXT

## Information behavior and types of ICT use

### 3. Memorializing



The screenshot shows a Facebook page for the "Virginia Tech Shooting Victims Memorial". The page is set to public and includes a detailed description of the 2007 shooting. It also features a "Recent News" section with several articles and a sidebar with "Facebook Pages" and "More Ads".

**facebook** Search Home Profile Account

### Virginia Tech Shooting Victims Memorial

Join

Wall Info Photos Discussions

#### Basic Info

Name: Virginia Tech Shooting Victims Memorial  
Category: Common Interest - Current Events  
Description: During the morning hours (approximately 7am), 33 students were shot and killed at Virginia Tech University in Blacksburg Virginia. The shooter, who initially entered a dormitory (West Ambler Johnston Hall) and killed 2 students, quickly went throughout the VT campus and proceeded to shot and kill 31 additional students (Norris Hall). The gunman ended this horrific event by killing himself.  
Privacy Type: Open: All content is public.

#### Information

Category: Common Interest - Current Events  
Description: During the morning hours (approximately 7am), 33 students were shot and killed at Virginia Tech University in Blacksburg Virginia. The shooter, who initially entered a dormitory (West Ambler Johnston Hall) and killed 2 students, quickly went throughout the VT campus and proceeded to shot and kill 31 additional students (Norris Hall). The gunman ended this horrific event by killing himself.  
This attack, according to CNN, Fox News, ABC, and NBC, marks the deadliest mass shooting in U.S. history.... (read more)  
Privacy Type: Open: All content is public.

#### Recent News

News: \*\*Note: Article courtesy of Globe & Mail/CNN

Gunman kills 32 in Virginia Tech shooting  
Police and campus officials criticized over crucial decisions made as the tragedy unfolded

ALAN FREEMAN AND JESSICA LEEDER

Globe and Mail Update

Blacksburg, Va. and Toronto — A domestic dispute in a Virginia university dormitory room exploded Monday into the deadliest shooting in modern North American history, leaving 33 people dead, more than a dozen wounded and sparking a controversy over crucial decisions made by the police and campus officials as the tragedy unfolded.

Blogs and other on-line forums run by university students at the elite school buzzed with rumours that a blow-up between the gunman and his girlfriend touched off the massacre. Late last night, some students

#### Facebook Pages

Facebook Pages help you discover new artists, businesses, and brands as well as connect with those you already love.

More Ads

# SOCIAL MEDIA: OFFICIAL RESPONSE TO CRISIS

facebook  Home Profile Account




## Global Disaster Relief on Facebook

As Australians unite for flood clean-up in Queensland, Premier Anna Bigh announced yesterday that her Disaster Relief Appeal Fund has raised over \$88 million. Keep up to date on developments related to the Queensland flooding on the Premier's Disaster Relief Appeal Facebook Page. on Tuesday

Wall Info Other Pages Links Causes Video >>

Share: Post Question Photo Video

Global Disaster Relief on Facebook + Others **Just Global Disaster Relief on Facebook** Just Others



### Global Disaster Relief on Facebook

As Australians unite for flood clean-up in Queensland, Premier Anna Bigh announced yesterday that her Disaster Relief Appeal Fund has raised over \$88 million. Keep up to date on developments related to the Queensland flooding on the Premier's Disaster Relief Appeal Facebook Page.

Tuesday at 10:29am · Like · Comment


94 people like this.

View all 6 comments



### Global Disaster Relief on Facebook

BBC News is keeping its Facebook fans updated on the flooding and mudslides in southeastern Brazil. Hundreds have been killed and President Dilma Rousseff has promised "firm action" by the government.



#### Brazil flood deaths 'jump to 335'

www.bbc.co.uk

The mountain towns of Nova Friburgo and Teresopolis have both seen more than 150 deaths and Petropolis dozens more, media report. Thousands of people have been made homeless.

January 13 at 10:39am · Like · Comment · Share

### Global Disaster Relief on Facebook

Subscribe via SMS


The Disaster Relief on Facebook page will spotlight efforts on Facebook to help respond to disasters around the globe.

#### Information


About:

The Disaster Relief on Facebook page will spotlight efforts on Facebook to help respond to disasters around the globe.


501,822 People Like This



Alfred Jett



David



Waleed

Create an Ad

#### Inside Animal Hoarding




New book with current research and a true story that takes you inside the life and thinking of an animal hoarder.

Like

#### Rosetta Stone


rosettastone.com



Learning a new language will change your life. Click to start today.

#### Online Marketing for CMOs

strategyconference.com



## IMPLICATIONS FOR RESEARCH & PRACTICE

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- Public access venues improvise in emergency situations
- Citizen-generated information is temporal and not always traceable (Tweets, Facebook posts)
- Massive amounts of data creates an obstacle for government agencies to understand implications of citizen-generated information
- Affects ability of government agencies to align their information sources with the citizens'

More info on the [Chile Project](#)

Thank you