

# Building an Ontology for Crisis, Tragedy, and Recovery

Oct. 1, 2009

NKOS Workshop, ECDL 2009

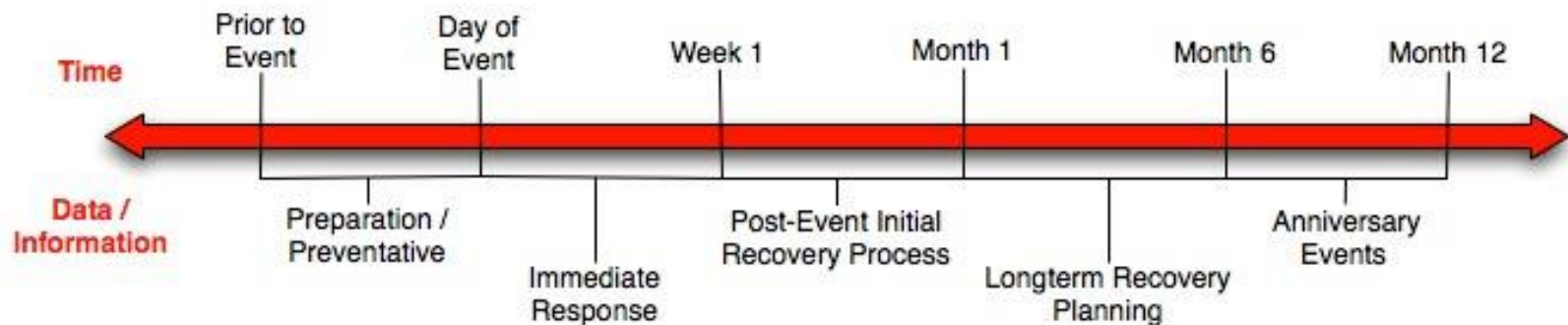
Corfu, Greece

Uma Murthy, Edward Fox,  
Naren Ramakrishnan, Andrea Kavanaugh,  
Steven Sheetz, Donald Shoemaker, and  
Venkataraghavan Srinivasan



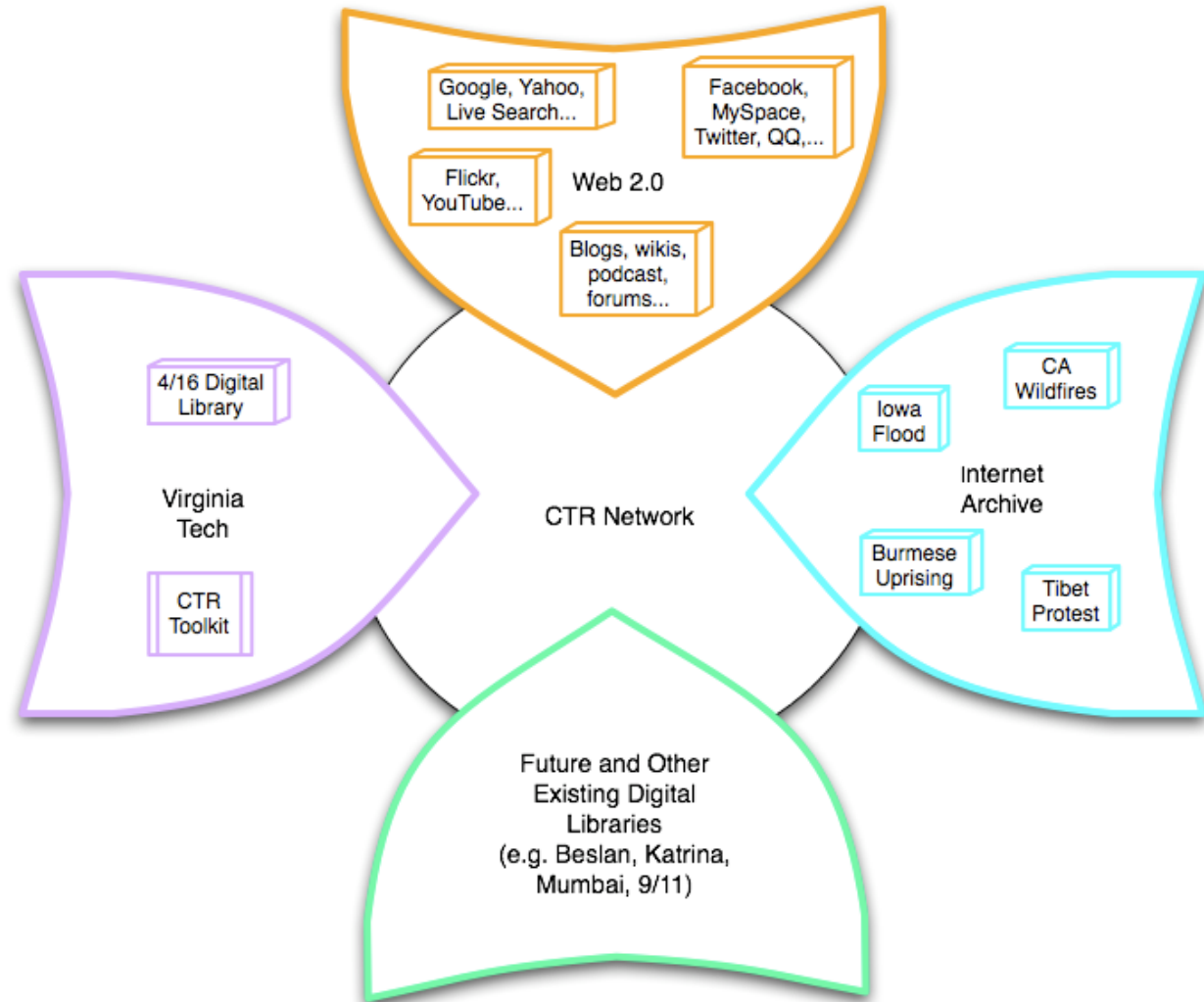
# Crisis, Tragedy, and Recovery

- Human tragedies that result from man-made and natural events affect communities significantly.
- During and after a tragic event, there are a series of needs that have to be addressed.
  - Usually centered around communication and a confusing plethora of data and information



# Crisis, Tragedy, and Recovery Network (CTRnet)

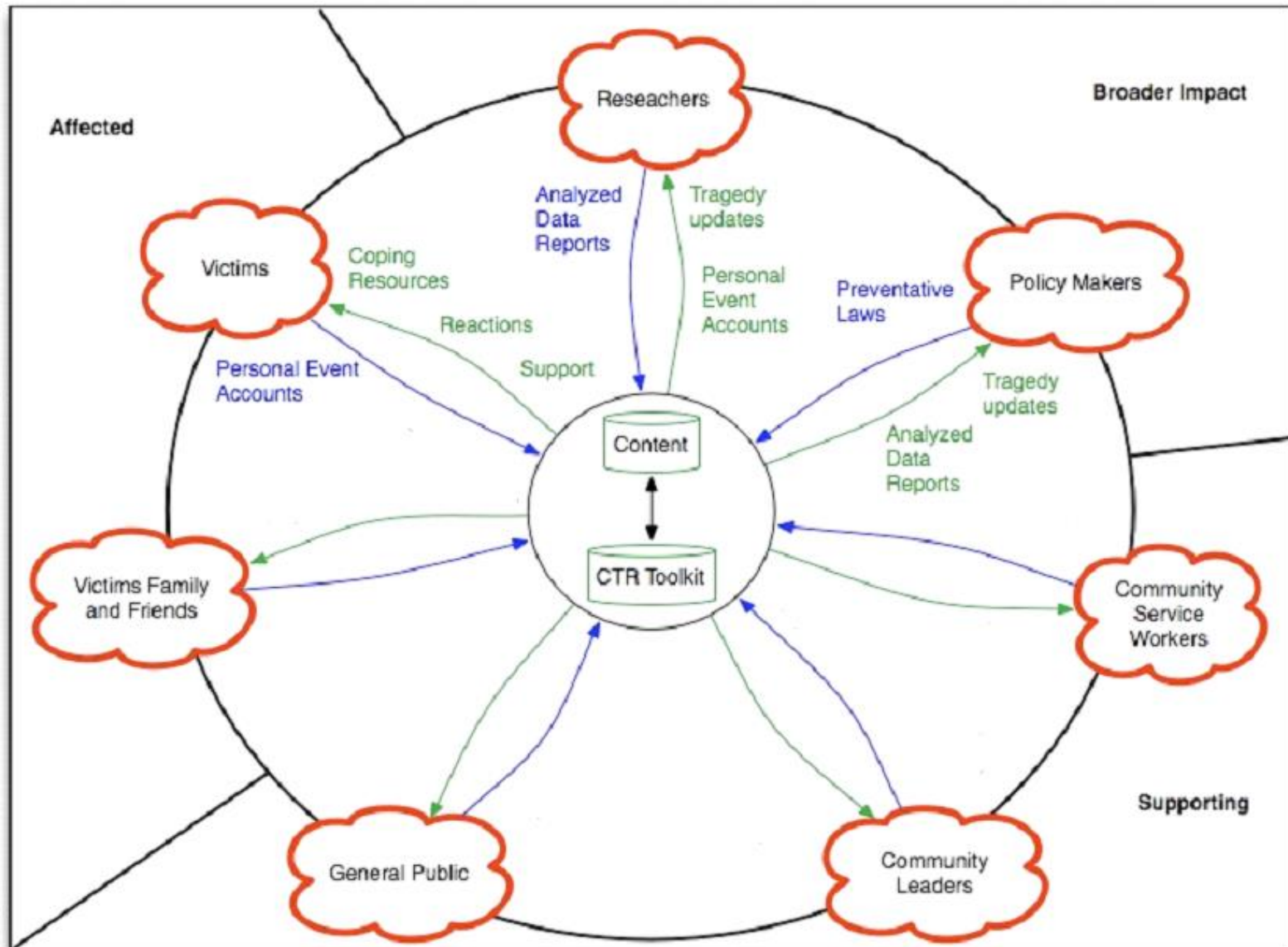
- Build a networked digital library relating to CTR
- Integrate community, content, and services relating to CTR, making it accessible, and preserving it for long-term reuse
- Support information exploration
- Aided by an ontology



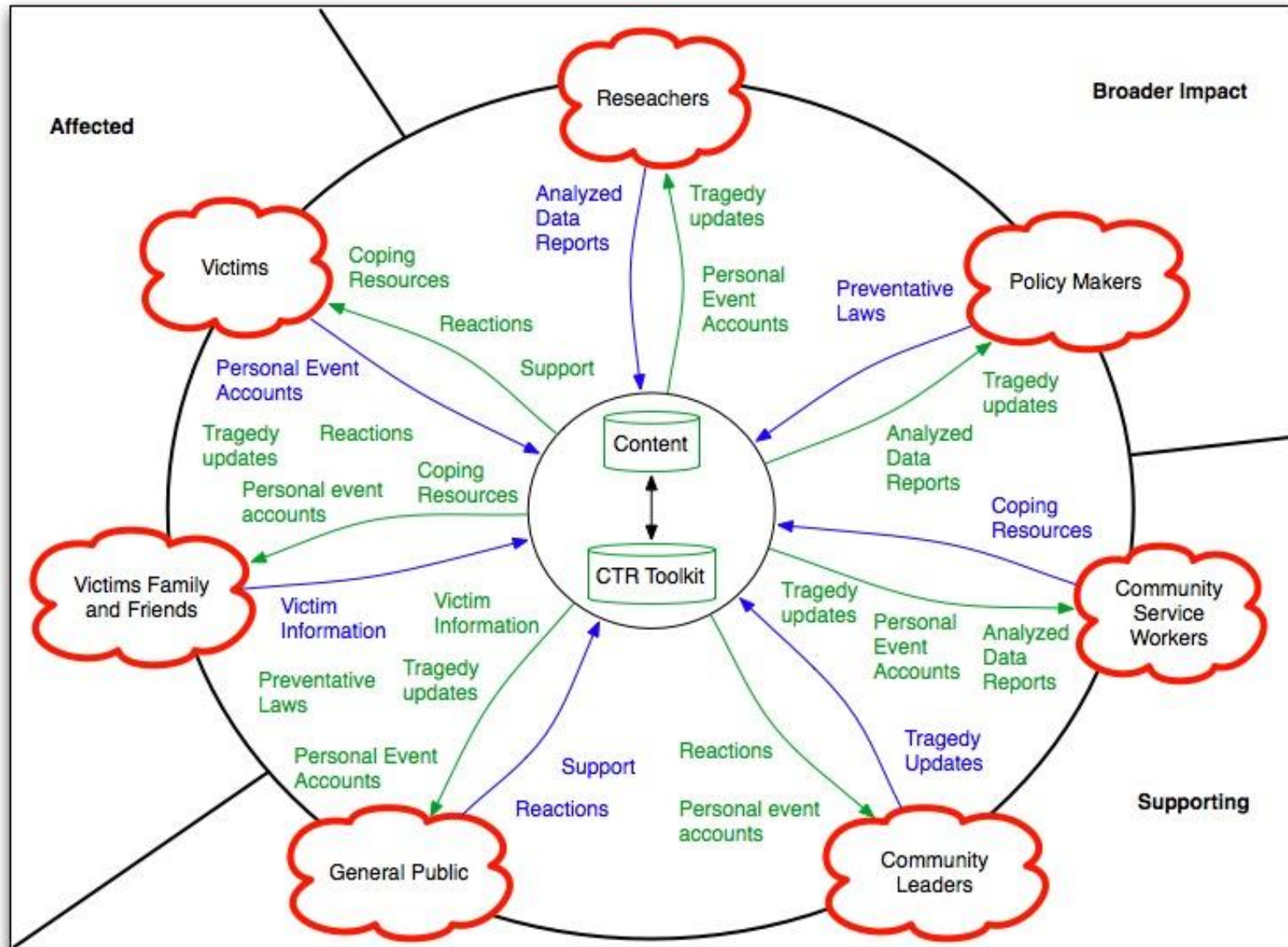
# Potential impact

- Help affected communities to recover more quickly and effectively
  - Global network
  - Easy accessibility
  - Relevant information and resources
- Support classes of stakeholders in reacting to and recovering from crises
  - Researchers
  - Scholars
  - Emergency personnel
  - Decision makers
  - Public

# CTR stakeholders

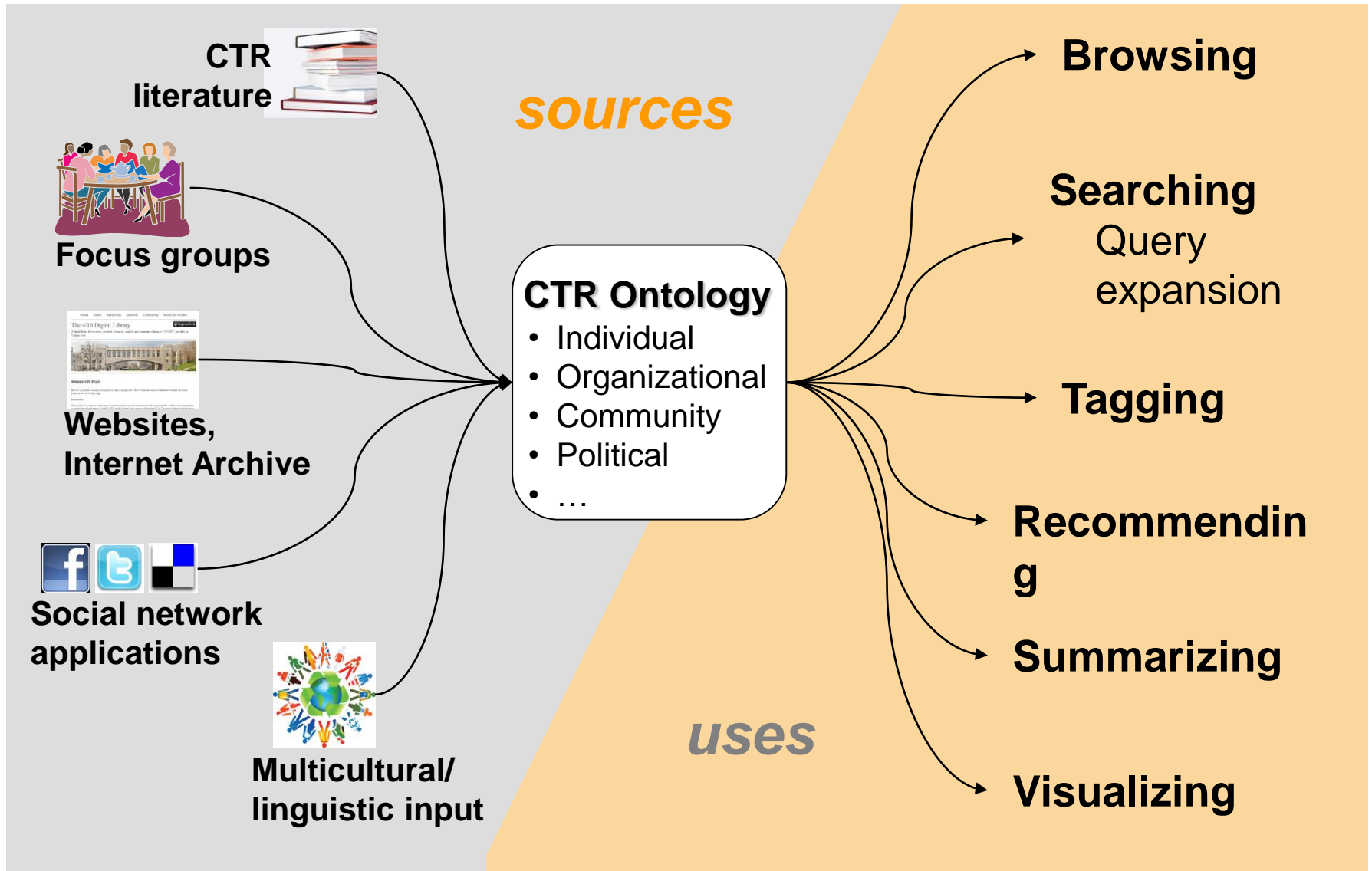


# CTR stakeholders



A key part of the CTRnet would be an **ontology** to help make sense of information as well as connect content, community, and services.

# An ontology for CTR





# Feedback desired from this NKOS workshop

- Ontology development methodologies and strategies
- Ontology evaluation
- Use of social software and sharing via social groups
- Applicability in diverse cultures and environments
- Related projects, software

# Thank you

<http://www.ctrnet.net>



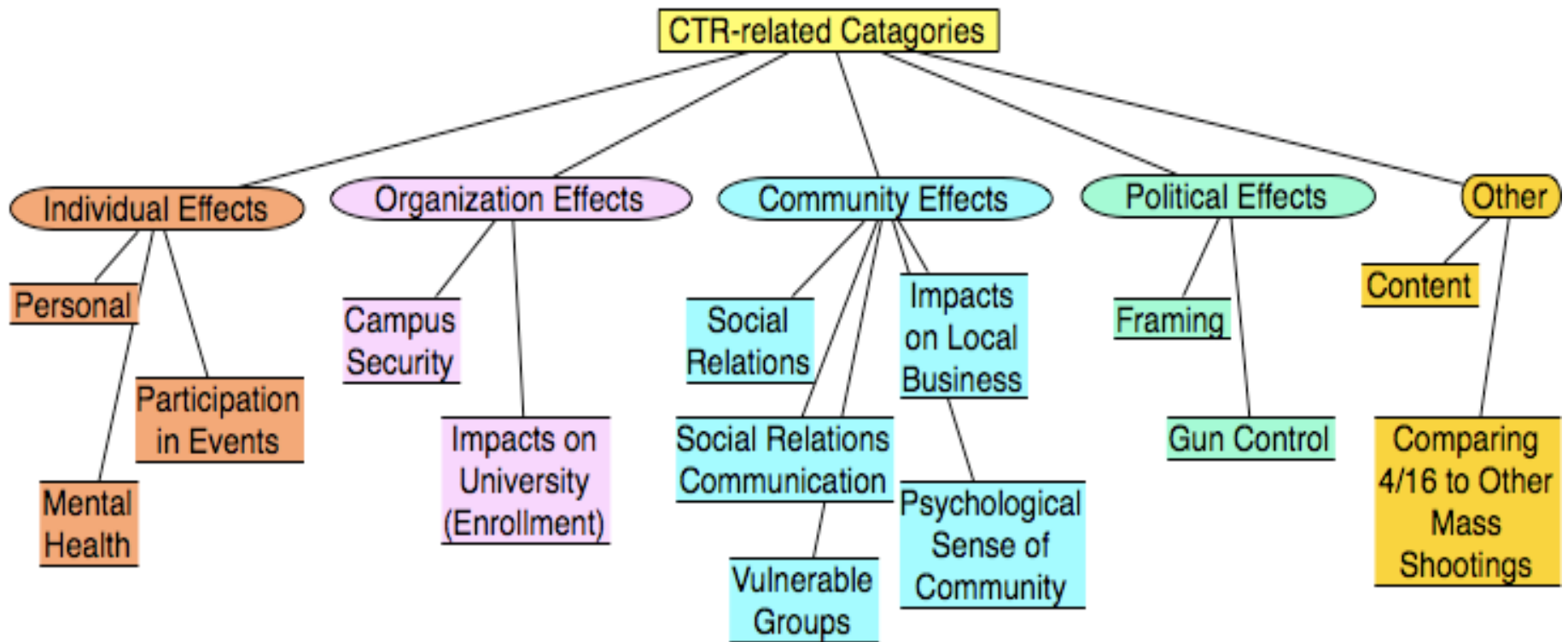
VirginiaTech

# Back-up slides

# Preliminary work

# Categories from focus group study

Results from focus group interviews following the April 16, 2007 tragedy at Virginia Tech



# CTR keyword pairs from literature

Extracted top keyword pairs from ISCRAM proceedings using the N-gram statistics package

emergency response	decision support	information systems	teams participants
decision making	data models	disaster monitoring	teams maps
command teams	disaster plan	crisis management	sms text-message
flood alerts	information seeking	situational awareness	disaster registry
physical communication	human disaster	teams access	decision preference