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## Crisis Informatics: Educating Information Professionals

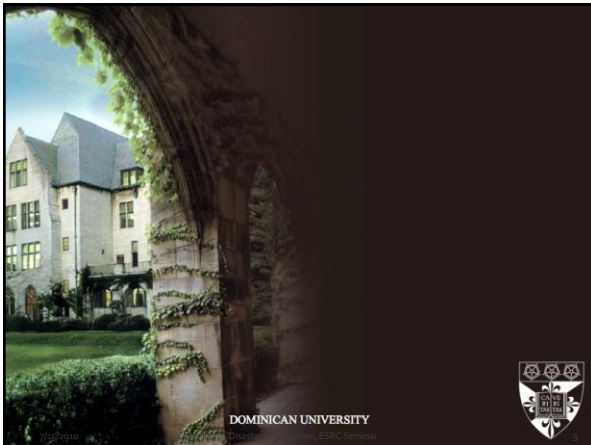
## Overview

- Background
  - How I became interested
- Crisis informatics
  - What is it?
  - Crisis informatics course
  - Information perspectives and challenges in crises
- Illinois Emergency Management Agency (IEMA)
- Chicago Office of Emergency Management & Communications (OECM)

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DOMINICAN UNIVERSITY



## Dominican University

- Total 3,500 students
- Graduate School of Library & Information Science
  - Master's & PhD In Library & Information Science
  - 500+ Master's students

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## DU Location

- 10 miles west of Chicago
- City of Chicago
  - 77 designated community areas
  - 228 named neighborhoods
  - Perfect laboratory for study of communities

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## How did I get into this? 2001UK Foot-and-mouth crisis

- What were the information needs of farmers during the FMD crisis?
- How did farmers seek information during the crisis?
- Why was it difficult to acquire information needed during the crisis?
- How did farmers use ICTs to meet these information needs?
- How did ICTs support the farming community during the crisis?

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## Information challenges in a crisis include:

- Information overload or conversely lack of information,
- Changing information needs at various stages of a crisis: preparedness, warning, impact, response, recovery and reconstruction,
- Many diverse actors and agencies involved who increase the amount of information produced,
- Integration and coordination of information by these actors and agencies,

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## Information challenges in a crisis include (cont.)

- Connecting informal and formal channels of information creation and dissemination
- Information uncertainty
- Trustworthy sources of information
- Conflicting information, and
- Getting the 'right' information to the 'right' person at the 'right' time – how to do this.

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## Crisis informatics: What is it?

- Broadly defined as the interconnectedness of people, organizations, information, and technology during crises.
- Informatics often relates to the development of new uses for information technology and focuses on how people transform technology, and how technology transforms people.

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## Crisis informatics: What is it?

- Also includes the important human ways of communicating and disseminating information which play a key role when technology infrastructure breaks down during a crisis.
- Crisis informatics strives for socially- and behaviorally-informed development of ICT for crisis situations
- Researchers at the Natural Hazards Center at the University of Colorado at Boulder have formed a crisis informatics research group.

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## Course objectives

- Understand the importance of information in crisis response,
- Explore the inter-connectedness of information, people and technology in a crisis,
- Analyze complex information needs and information seeking in a crisis,
- Gain an understanding of the factors that impact the integration and coordination of information in a crisis
- Explore the needs of different actors in a crisis,
- Investigate how technologies can support communities in a crisis,
- Discuss research methods appropriate to crisis situations, and
- Prepare information professionals to become key players in crisis response

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## Of interest to:

- A variety of practitioners, researchers and academics in information science, knowledge management, and information systems but also to other fields e.g.
- Government, local emergency management and planning, non government organizations, risk management, communications, community planners, and public health.

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## Course content

- Using theory in crisis informatics – social capital, social networking, collective behaviour, social convergence, and sense-making,
- Crisis life-cycle – preparation, warning, impact, response and recovery,

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## Course content (cont.)

- Community and community networks,

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## Pentalk Network



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## Pentalk Network -

- Local rapid response scheme to a national crisis
- Community network set up by farmers to assist farmers
- Provided farmers with PCs and training
- Initial aims :
  - To provide access to the Internet – news, information
  - To reduce isolation by giving access to technology to enable contact with family and friends
  - To give farmers access to a community with whom to discuss the crisis and their own situations
  - To provide an IT skills boost - enabling farmers to cope with the growing demands of government for online working
- How can community networks help during crises involving major information and communication management?

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## Course content (cont.)

- Information needs and information seeking behaviours

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## Course content (cont.)

- Citizen communication
- Government response to crises
- Co-ordination of information
- Information systems

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## Course content (cont.)

- Role of ICTs (information and communication technologies) during crisis response
  - Social media tools
- Traditional technologies

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## Course content (cont.) Role of libraries and archives



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## Course content (cont.)

- Trust and information in crisis
- Information lessons learned from crises
- Research methods in studying crises


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## Important that we...

- Understand the importance of information in the various stages of crisis, preparation response and recovery,
- Are able to analyze complex information needs and information seeking in a crisis,
- Gain an understanding of the factors that impact the integration and coordination of information in a crisis, and
- Investigate how a mix of technologies and human-centred approaches can support communities in a crisis.

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## Illinois Emergency Management Agency



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## IEMA (cont.)

- Partners with Amateur Radio Operators
- Radon Video Contest
- <http://www.state.il.us/iema/index.asp>

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## IEMA (cont.)

- IEMA's 12-Month Preparedness Campaign in May
  - Focus - Children and Preparedness
    - Activity book helps children learn importance of disaster preparedness
    - Download from the Ready Illinois website at [www.ReadyIllinois.gov](http://www.ReadyIllinois.gov)
  - TV spot
  - Video game

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## Illinois State Emergency Preparedness Team

- Strengthening community capacity at a micro level

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## Chicago -OECM



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## Chicago – OEMC

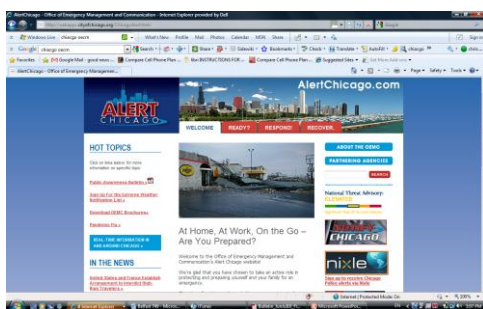
- AlertChicago.com
- <http://webapps.cityofchicago.org/ChicagoAlertWeb>
- Online Emergency Planning Tools
- <http://ready.adcouncil.org/beprepared/>

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## Alert Chicago



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## Ready America



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## Citizen Corps



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## Chicago - Nixle

- Trusted, up-to-the-minute neighborhood information directly from the Chicago Police Department.

“Stay connected to what’s happening in Chicago and other locations that are relevant to you! You choose the information you want, from urgent public safety alerts to community information. We’ll send them the way you want them – by text, by email, or over the web”

- <http://www.nixle.com/chicago-welcome.html>

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## Questions...

Thank you for your attention

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