Community Response Grid

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Community Emergency Response

- Research into new technologies offers hope for better access, exchange, and distribution of information in emergencies.

- Must improve information and technology use by communities in emergencies.
Community Response Grids (CRGs)

- Coordinate community response during emergencies

- Provide residents with user-centered local information and clear choices about what to do next in an emergency

- Enable residents to report, receive, and share information with government officials and other citizens
Key CRG Features

CRG is a geographically-based sociotechnical network that helps local communities prepare for, respond to, and recover from emergencies.

Key Features:
- Information dissemination and exchange
- Peer-to-peer support
- Sense making and decision making
Traditional Response Model

Decision Makers

First Responders  First Responders  First Responders

Citizen  Citizen  Citizen  Citizen  Citizen
Community Response Model
Information and Emergencies

- Recent events have demonstrated the need to rethink the ways in which information is accessed, exchanged, and distributed in large-scale emergencies
- Essential goal is to bridge community information needs and technological capabilities
What’s Happening

From University Police

- **Breaking News**: First cases of pandemic flu verified in campus. Health and Counseling Center is beginning to implement emergency response procedures. Administrative departments, student service units and all academic programs should begin preparation for shutting down. (Discuss this)

From Community Members

- **John Doe** said: Two residents in Allegany Hall are reported having symptoms of the flu. (Discuss this) (Map)

- **Rob Smith** said: One of my roommates in Hagerstown Hall has gone back home. He said that he didn’t feel well. (Discuss this) (Map)

- **Liz Jones** said: When I was jogging in campus this morning at about 6:30am, I saw a guy wandering in parking lot #11 and looked suspicious. (Discuss this) (Map)

Reporter: Rob Smith
Location: Hagerstown Hall
Time: 10:30am, Feb 14, 2008
Description: One of my roommates in Hagerstown Hall has gone back home. He said that he didn’t feel well.
I Have Something to Report
(For urgent, life-threatening emergencies, please dial 911 to report to police.)

1. Select the emergency type:
   - Civil (Fire, Power Outage, Water/Gas Leak, …)
   - Criminal (Suspicious Activity, Gun Shooting, Bomb Threat, …)
   - Laboratory (Chemical Spill, Radiation, …)
   - Medical (Influenza, Food Poisoning, …)
   - Natural (Flood, Snow Storm, Tornado, …)
   - Other ____________

2. Provide the location of the emergency:

   [Location input field]

   Or identify the location on an [interactive camps map]:

3. Briefly describe the situation:

   [Description input field]

4. If you have an image or video, please upload here:

   [Upload input field]

   (Have multiple files?)

5. Are you also requesting for help? YES [ ] NO [ ]

   If YES, briefly describe what kind of help is needed:

   [Help description input field]

   [Submit button]
Community Response Grid
- Support Your Community In Emergency Response

You're logged in as John Smith!  

Home

What's Happening

Are You Ready?

I Have Something to Report

Someone Needs Your Help

Sort by Requester | Time | Location | Status |

<table>
<thead>
<tr>
<th>Status</th>
<th>Requested by</th>
<th>Situation</th>
<th>Time &amp; Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offer help</td>
<td>Dr. Smith</td>
<td>To better control the outbreak of the flu, we need someone in each dorm to report infection status … (read more)</td>
<td>Time of Request: Feb 14, 2008 Thursday 11:10 am Location: N/A</td>
</tr>
<tr>
<td>Offer help</td>
<td>A. Lee</td>
<td>I feel sick this morning and I need to see a doctor. Unfortunately, my car broke down a few days ago and I haven't got it fixed. Can someone live nearby give me a rid to hospital? (read more)</td>
<td>Time of Request: Feb 14, 2008 Thursday 10:10 am Location: Parking Lot #1</td>
</tr>
<tr>
<td>Helped by</td>
<td>T. Liu</td>
<td>I'm in McKeldin right now. Can anyone walk me back to my apartment located near the university bookstore … (read more)</td>
<td>Time of Request: Feb 11, 2008 Monday 11:30 pm Location: McKeldin Library</td>
</tr>
</tbody>
</table>

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Community Response Grid
- Support Your Community In Emergency Response

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Interact with Your Community

Discussion Forum
Discuss about recent incidents, news, or anything related to the community’s safety.

<table>
<thead>
<tr>
<th>Thread</th>
<th>Starter</th>
<th>Started at</th>
<th>Replies</th>
<th>Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking News: First cases of pandemic flu verified in campus.</td>
<td>UMDPS</td>
<td>10:15am, 2/14/2008</td>
<td>33</td>
<td>550</td>
</tr>
<tr>
<td>Crime Alert: Male suspect outside Howard Hall student dorm</td>
<td>UMDPS</td>
<td>9:05am, 2/14/2008</td>
<td>10</td>
<td>102</td>
</tr>
<tr>
<td>Member Report: Two residents in Allegany Hall are reported sick</td>
<td>John Doe</td>
<td>9:00am, 2/14/2008</td>
<td>6</td>
<td>77</td>
</tr>
<tr>
<td>Member Report: One residence in Hagerstown Hall is reported sick</td>
<td>Rob Smith</td>
<td>8:55am, 2/14/2008</td>
<td>4</td>
<td>79</td>
</tr>
<tr>
<td>Member Report: Suspicious person in Lot #11</td>
<td>Liz Jones</td>
<td>7:00am, 2/14/2008</td>
<td>3</td>
<td>110</td>
</tr>
</tbody>
</table>

more threads ...

Wiki
Collective contribution for safety tips, best practices, or problem-solving.

- Top 10 campus safety tips
- Recommended items to include in an emergency supply kit
- Locations of Blue Light Emergency Phones
Your Profile

Name: John Smith
Department: College of Information Studies
Position: Faculty
Address:
  Work: 4100 Hornbake Bldg, College Park, Maryland
  Home: 1234 Baltimore Ave, College Park, Maryland (private)
Phone:
  Work: 301-405-9999
  Home: 301-123-4567 (private)
  Cell: 301-765-4321 (private)
Email: goodstudent@gmail.com
Alternative Email: jsmith@umd.edu

Receiving emergency alert via (private):
- SMS on cell phone
- Email
- Work Phone

Expertise/resources that can be used in emergencies:
- I have a SUV
- I have a handheld GPS
- I'm a certified First Responder

Emergency contacts: (private)
- Dr. Robinson
- Mrs. Smith
- Mr. White

You're logged in as John Smith! (Log out)

You are a member of:
- College of Information Studies (iSchool)
- Center for Information Policy and E-Government (CIPEG)
- UMD @ Facebook
- UMD Movie Club
Conceptual Design

Functions
- Info Gathering
- Info Dissemination
- Emotional Support
- Trust Building
- Decision Making
- Coordination

Technology
- Communication Infrastructure
- Community Space
- Analytic Tools

Community
User Studies

- Survey on social networks and communication infrastructure of a sub-community
  - A hybrid system incorporating multiple communication platforms
  - Support active social interaction
  - Start with the Web interface

- Interviews/Meetings with ER Professionals
  - Mainly deal with “slow-moving” emergencies
  - Support mainly pre-disaster preparation and post-disaster recovery
  - Authentic, identifiable user
  - Collective filtering
Future Steps

- Campus wide survey on motivation issues
- Mobile CRG
- Information organization and filtering
- Human moderating
- Trust, privacy, and integrity of information
Questions?

Thank you!