Lives on the Line
Securing Crisis Maps in Libya, Sudan, and Pakistan

george chamales - rogue genius llc
The Humanitarian Technology Community needs your help.
CRISIS

Aid

Information

Crisis Mapping Platform

Reports

george chamales // BLACKHAT USA - 2011
I'm asking for help. I am lost beneath a house. Second Floor 147 Avenue Christophe Chanel Carrefour
Natural Disasters
Don’t Shoot Back
Taliban issues threat to 'foreign horde' of aid workers in Pakistan helping flood relief effort

By JAMES WHITE

Foreign aid workers could become a target for Taliban fighters as they help Pakistani flood victims, a spokesman for the militant group claimed today.

As increasing numbers of aid agencies fly into the disaster-hit country to offer assistance, spokesman Azam Tariq said the ‘horde of foreigners’ could be at risk.

The terrorist group has a history of attacking aid workers, including agencies under the UN umbrella.

Pakistan’s Taliban spokesman Tariq claimed that the US and other countries that have pledged support are not really focused on providing aid to flood victims but have other motives he did not specify.

‘Behind the scenes they have certain intentions, but on the face they are talking of relief and help,’ he said.

‘No relief is reaching the affected people, and when the victims are not receiving help, then this horde of foreigners is not acceptable to us at all’.

UN humanitarian chief John Holmes said it remains committed to helping flood victims in Pakistan.

Threat: Pakistan Taliban spokesman Azam Tariq, pictured in 2002, has spoken of his group’s
Comparison: 17 June - 4 July 2011 | Fig 4
Object Cluster in Kadugli Town | Kadugli, South Kordofan

Satellite Sentinel Project

Obviously Faked Reports

Site Blocked by IP address

Inadvertent Spam DOS
Protecting Observers

Verifying Information

Trusting Volunteer Analysts
@JosetteSheeran
Josette Sheeran

Excellent #Libya "Crisis Map" can help #UN #WFP plan #humanitarian #food, also 4 borders w/ #Tunisia #Egypt - http://libyacrisismap.net/main

6 Mar via Twitter for BlackBerry® ⭐ Favorite t Tweet Reply

Retweeted by pauline_c64 and 36 others
“We gave Egyptian National Security a dedicated username and password [to access the Ushahidi platform]”
Capability

Attacks

Security

“Ooh Shiny!”

“Oh $#!@!”

“Don’t just stand there, DO SOMETHING!”
Users’ Identities Compromised → People Arrested

Site Knocked Offline → Lifeline Lost

Deployment Compromised → Technology Abandoned
This is where you come in
Present What’s Been Done So Far

Feedback on Current Best Practices

Generate Interest in the Security Community
LIVE SIMULATION

Insert Crisis Here
There has just been a ___________ in the country of ________________.

As a team from ________________ we are responsible for deploying a crisis map in order to ________________.
There has just been a _______________

- Revolution
- Natural Disaster
- Military Crackdown
- Contested Election
- Outbreak of Sectarian Violence
...in the country of ____________
...as a team from the __________
Bahraini blogger dies in custody; journalists under attack

Iranian blogger arrested before Germany trip

Jailing Maikel Nabil betrays the Egyptian people's revolution

By unjustly imprisoning the blogger Maikel Nabil, the Egyptian army only amplifies his simplistic pro-Israel rantings.

Maikel Nabil is an Egyptian citizen and blogger who was sentenced to three years' imprisonment on 10 April by a secretive military tribunal on the dubious charge of 'insulting the army'. This is a grave violation of human rights and a betrayal of the objectives of the Egyptian people's revolution. His sentence must be overturned regardless of what one thinks of Nabil's writings or of his politics. Patriotism cannot be invoked to defend injustice.
“We gave Egyptian National Security a dedicated username and password [to access the Ushahidi platform]”
Individual | Local NGO | Media Org | International NGO | Military

Most Vulnerable | Direct Attacks | Least Vulnerable

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TED Fellow

Colleague’s Consulting

Worked on Pakreport

Reputation
Isolation of Operations

Individual

Local NGO

Media Org

International NGO

Military
Threats to Deployment Managers

Ignorance
- Education
- Standards
- Best Practices

Direct Attacks
- Anonymity
- Bigger the Better

Infiltration
- Reputation
- Isolate Operations
...we are responsible for deploying a crisis map
...we are responsible for deploying a crisis map

- Code it Yourself
- Open Source Crisis Mapping Apps
- Kludge Existing Services
Reports are private until approved......unless
Platform Considerations

Security
- Code Vetting
- Secure Coding

Adaptability
- Source Access
- Helpful Authors
- Previous Additions
...we are responsible for deploying a crisis map.
Block Like an Egyptian
How did the Egyptian government turn off the Internet?
By Christopher Beam
Posted Friday, Jan. 28, 2011, at 4:55 PM ET

As protesters take to the streets in Egypt, the government has reportedly shut down the Internet. How does that work? Does Egypt have an on/off switch?

No. While we don’t want to imply that the government is trying to punish anyone—can push them into a dark hole—government officials deny that they are in any way cooperating because they believe it is a threat to national security. Here’s what we know: The Internet is being used to spread information, build awareness, and mobilize for change.

Syria Cuts the Internet
Government halts connection, hoping to halt protests
By Kari Lipschutz
June 04 2011

Syria pulled the plug on the Internet. As an unwavering anti-government movement continues to demonstrate against Syrian President Bashar al-Assad, government officials blocked most of the country’s Internet network, cutting off a vital tool for organizing and communication.

Mideast Uses Western Tools to Battle the Skype Rebellion

The Murdoch Summer
Michael Wolff asks: When will the end end?

First Mover: Mark Whitaker
CNN’s new managing editor on his role at the cable network

Hacked!
Adweek’s complete coverage of Rupert Murdoch and the phone hacking scandal
Platform Location

Observable
- Encryption
- Obfuscation

Attackable
- DOS Prevention
- IP Mobility
- Synchronization
- Expect Outages
...in order to ________________.
Setup Platform
basic tech skills + server

Operate Successfully
the skills needed to perform the deployment effectively, securely
Spreading the Word

No One  Private Network  Everyone
Message Corruption
Spreading the Word

Misinterpretation
- Anonymity
- Bigger the Better

Corruption
- Source Access
- Helpful Authors
Collection Sources

Direct Messages  Social Media  Professional Media

- SMS
- Facebook
- YouTube
- Twitter
- YouTube
- Instagram
- Flickr
- Al Jazeera
- CNN
- The New York Times
A Gay Girl In Damascus

"Borders mean nothing when you have wings."

FREE AMINA ARRAF
حرية لامية عارف

A Heterosexual Married American Guy in Ireland

http://www.guardian.co.uk/world/2011/jun/13/syrian-lesbian-blogger-tom-macmaster
Collecting Reports

Verification
- History
- Reputation
- Collaboration

Collection
- Multiple Methods
- Expect Outages
Message Processing

Local Team

Crisis Mapping Community

Any Online Volunteers

Automated Analysis

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<table>
<thead>
<tr>
<th>INCIDENT TITLE</th>
<th>LOCATION</th>
<th>CATEGORY</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
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</table>

Desperate refugees continue to flow to Libya's border
Want to Help Humanitarian Operations in Libya using your Laptop? Join UN Volunteers Online Now!

By PATRICK | Published: MARCH 10, 2011

The UN Online Volunteer Service (OVS) has now teamed up with the UN Office for the Coordination of Humanitarian Affairs (OCHA) and the Standby Task Force to support crisis mapping efforts in Libya. This means you can now join the UN as a volunteer to provide direct support to the humanitarian response in Libya.
Help map SMS messages from the crisis in Pakistan

Instructions

This job involves the translation, categorization and geotagging of SMS messages from Urdu, Pashtu or English speakers. This is a volunteer job for humanitarian benefit. We thank you in advance for your efforts to support this project.

1. Read the SMS message from Pakistan.
2. If you don’t understand the language the SMS is written in, click “I can't understand this language, get me a new message”.
3. If the SMS is illegible, junk, or does not contain words, check the box to “Mark as not enough information”.
4. Answer the questions that follow.
5. Select the appropriate/applicable category for the message from the list shown. You may select more than one category.
6. If the SMS contains geographic information, click on the map to place a red marker in the location nearest to the geographic location from the SMS.

Please use the “Notes” box to include any other relevant or important information about the SMS message content. Thank you!

The SMS: [FL communities using un safe water resources (rivers,ponds) in thatta, sindh ]

Can you translate this SMS?

I can't understand this language, get me a new message

Language (required)
- English
- Pashtu
- Urdu
- Other

Please fill out as many fields about this SMS as possible
Crowdsourced Micro-Tasking
Message Processing

Infiltration

Need to Know
Corroboration

Inaccuracy

Corroboration
Reputation
History
Post-Crisis Opportunities
YES

Worth it?
Lives on the Line
Defending Crisis Maps in Libya, Sudan, and Pakistan

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