DISASTER ALERTING IN MOBILE4D
USING CAP IN A CROWDSOURCED DISASTER ALERTING AND REPORTING SYSTEM

LUTZ FROMMBERGER
THE CAPACITY LAB

- Research Cooperation U Bremen - UNU IIST Macau
- Founded in 2012
- ICT Solution for Capacity Building in Developing Countries
- Focus: mobile and geo-spatial application

www.capacitylab.org
WHY YET ANOTHER DISASTER SYSTEM?
WHAT IS MOBILE4D?

- Smartphone based disaster alerting and reporting
- Carried out as a student project
- Development with Ministry of Agriculture and Forestry, Laos
MOBILE4D - STATUS

• Start in late 2012
• Functionality field test in Laos (2013)
• Pilot installation upcoming (Fall 2014)
• Funding for cooperation with NUoL until 2016
MOBILE4D COMPONENTS

Smartphone: local reports

Web frontend: administration

Server: notification
CROWDSOURCED DISASTER REPORTING

- Crowdsourced data collection on smartphones
- Location-based
- Focus: smaller-scale disasters
NOTIFYING THE RIGHT PEOPLE
INFORMATION DISSEMINATION

- Send alerts
- Update information
- Contact reporter
- Verify reports
- Distribute tutorials
- Health information
- ...
NOTIFICATION CHANNELS

- Push message to phone
- SMS
- Email
- Twitter / Facebook
- RSS / GeoRSS
- CAP Atom Feed
WHY CAP?

- One tool for one purpose
- Plug in other systems (e.g. for response)
- Exploiting as many sources and alert channels as possible:
  - Dissemination of Mobile4D reports
  - Dissemination through Mobile4D
MOBILE4D AND CAP

Data exchange format

• Import and export of reports in CAP

• CAP Atom Feed

• CAP Feed Imports

Supports:

• Polygons if available

• Specific info in <parameter> field
ISSUES AND CHALLENGES

• Strict vs. relaxed specification

• What is mandatory?

• Where to put system-specific information?

• Syntax vs. semantics

• Valid ≠ reasonable

• How will it really look like in the end?
THANK YOU
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