Geo-Usability

Making Effective Maps

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Maps aren’t about data or events... they’re about people.
• Decide what questions you want your maps to answer before you start.

• Review frequently as you collect data and build your map.
Map-level Questions

- Who wants to know?
- What do they want to learn?
- Who do you want to tell?
- What do you want to tell them?
- What are you/they going to do about it?
Specific Examples

- Where were these damage assessments made?
- What is the status of our emergency shelters?
- Where will our team be working tomorrow, and how do they get there?
Placemark-level Questions

• Approach titles and descriptions with questions like:
  • What happened?
  • Is this different from the norm?
  • Why is it important?
  • What should we do about it?
Titles and Descriptions Are Essential

Coordinates are not sufficient.
Placemarks names should be distinct

(Which do I click?)
Visual Vocabulary

- Use different placemark icons for distinct types of information
- Use different shapes to convey key attribute
- Use color for secondary distinctions (B/W printing, color-blindness)
Add a Legend
Balloon Design

• No strict limits (i.e. not Twitter)
• Short and dense is good
• Essentials in balloon
• Point to details elsewhere
Connect Data to the Rest of the World

Not Actionable

Actionable
Where’s the read more?
RT @PublicAlerts: The emergency warming center operated by @RedCrossPDX will NOT open tonight. Call 503-721-1500 for shelter assistance.

9:33 AM Dec 13th, 2009 from Echofon

portlandOEM
PDX Emergency Mgmt

Not always a link
Balloon Templates

- Uniform, structured data
- Readability
- Absent data is obvious
Key Metadata

- sensitivity and security
- source
- accuracy
- reported and "valid until" timestamps
Key Metadata (cont.)

- contact information
- links to original/additional data
Limit HTML Balloons to Read-only Maps
Remember Display Size

If mobile is a big part of your audience, think small!

(This is a screenshot of HumaniNet’s Sumatra map displayed on an iPhone.)
Data Sources
Passive Data Collection

Coordinates will be like timestamps: assumed.
Label Robotic Output
PF&R recalling box for 2104 NW Kearny Street. Burnt food in Apt 207 no extension.

4:50 PM Dec 11th, 2009 from Seesmic

pdxemops
Toasters May Require Inspection?
Avoid "Data Dump" Maps
Data Visualization
Filters and Datasets
Privacy
I’m anonymous, right?
Anonymous 01/11/10(Mon)16:50:05 No.188035084

>>188031862
http://maps.google.com/maps?ll=38.897778,-77.036639&z=10

HI OP, YOU APPEAR TO BE IN WASHINGTON.

NICE IPHONE 3GS >:3

Y Cb Cr Sub Sampling : YCbCr4:2:0 (2 2)
Aperture : 2.8
GPS Altitude : 49 m Above Sea Level
GPS Latitude : 38 deg 53' 52.00" N
GPS Longitude : 77 deg 2' 11.90" W
GPS Position : 38 deg 53' 52.00" N, 77 deg 2' 11.90" W
Image Size : 600x800
Shutter Speed : 1/10
Focal Length : 3.9 mm
Light Value : 2.9
Privacy Concerns

- World Vision kids programs
- IDP Camps
- Wells and property taxes in Haiti
- Post-storm/flood recovery in the US
Privacy Solutions

- Awareness of risks
- Explain to all participants
- Cleanse data and metadata
- Obfuscation
- Summarize and aggregate data
More about Maps 2.0

http://maps2.humaninet.org