

GEOG: 372 Web Mapping

Volunteered Geographic Information

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The Development of GIS (so far)

- 1962-1992: GIS – **S for Systems (Roger Tomlinson)**
- 1992-2012: GIS – **S for Science (Michael Goodchild)**
- 2012-2017(?): GIS - S for a combinations of **Systems, Science, Services, Studies,**

Competing Visions: The next generation of GIS?

- Next Generation of Digital Earth (Goodchild et al.)
- Spatial Computing (Duckham/Shekhar)
- Open GIS (MSC)
- CyberGIS (Wang/Anselin/Nyerges)
- GIS as a Platform (Dangermond)
- GIS 2.0/3.0 (Yuan/Tsou)
- Qualitative GIS (Elwood/Cope)
- Volunteered Geographic Information (Goodchild/Sui/Elwood)
- People-based GIS /Big-time Geography (Miller)
- CloudGIS (Yang)
- Post-GIS (Wright/Harvey)
- Metaverse
- GIS as Media
- Semantic GeoWeb
- MetaGIS
- Quantum GIS
-

Introduction

VGI

Volunteered Geographic Information

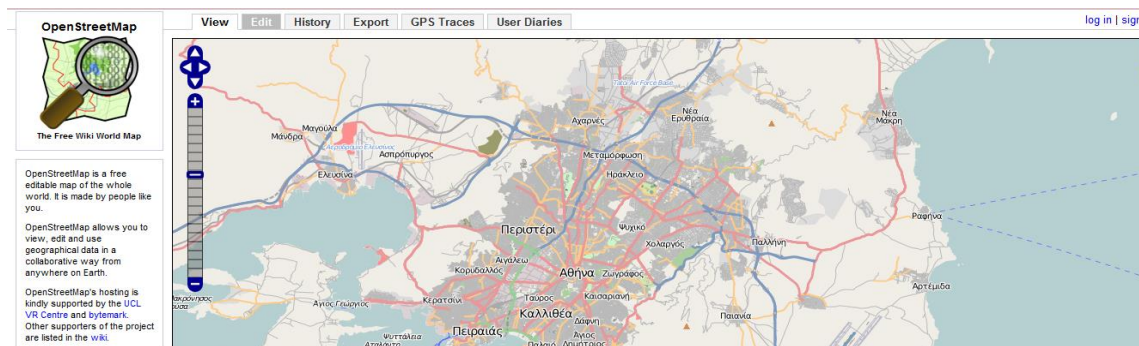
Updating
with local knowledge

New Data
from local knowledge

Social
interaction
Web 2.0

THE OPENSTREETMAP - GENERAL

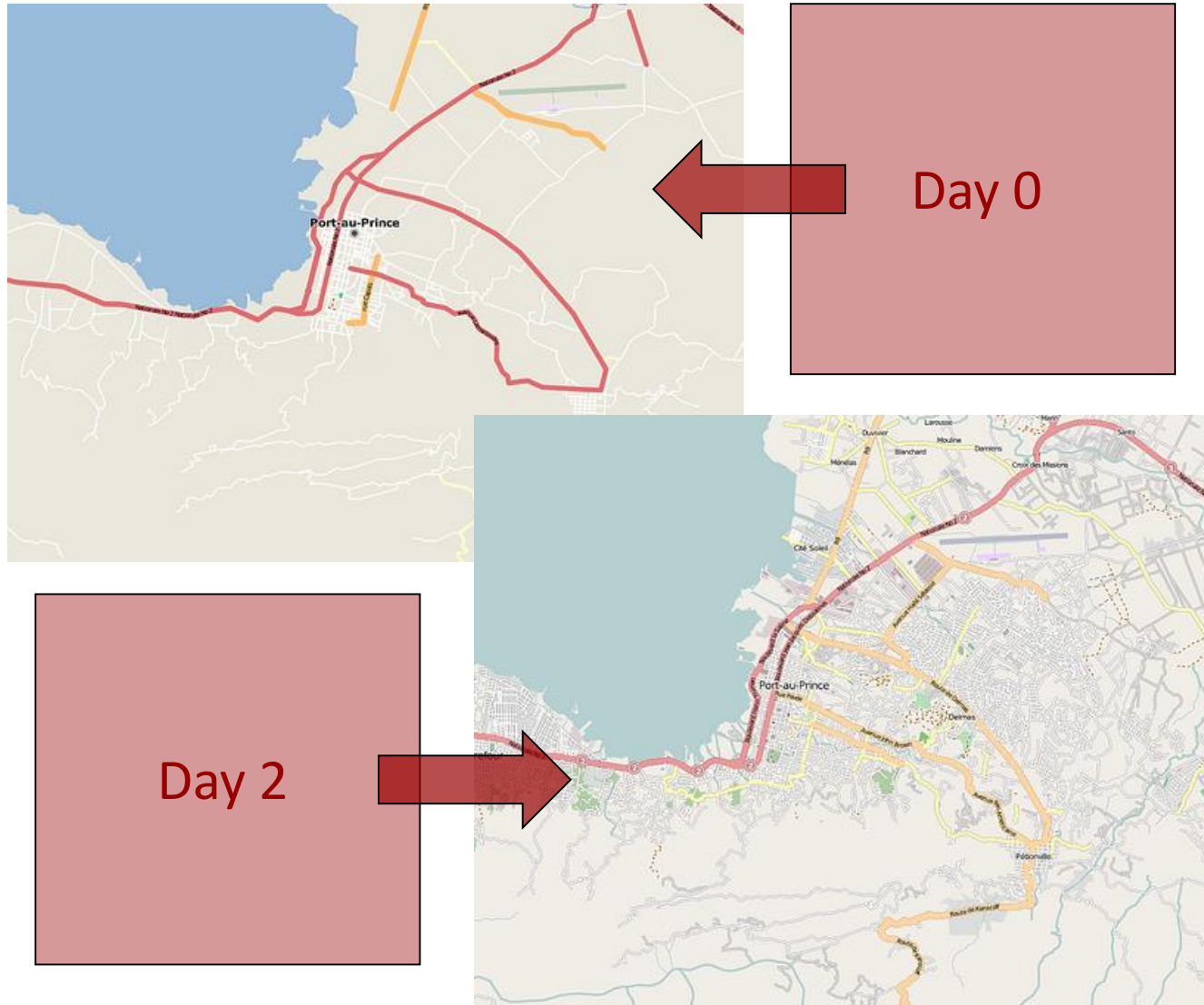
- As the welcome message says in the main home page of OSM: *“The OpenStreetMap is a free, editable map of the whole world. It is made by people like you.”*
- OSM was launched by Steve Coast in 2004 and was spread in many countries in relatively short time.
- Guardian introduced OSM in its top 5 list among 100 mapping related websites in 2009.



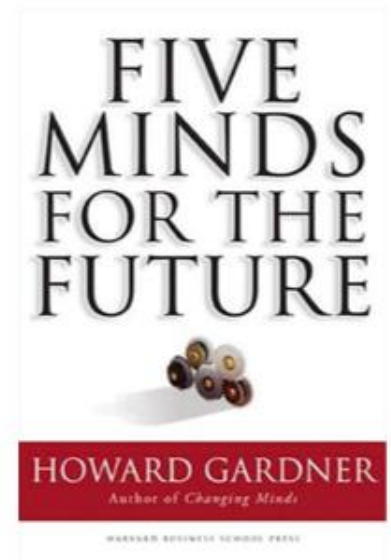
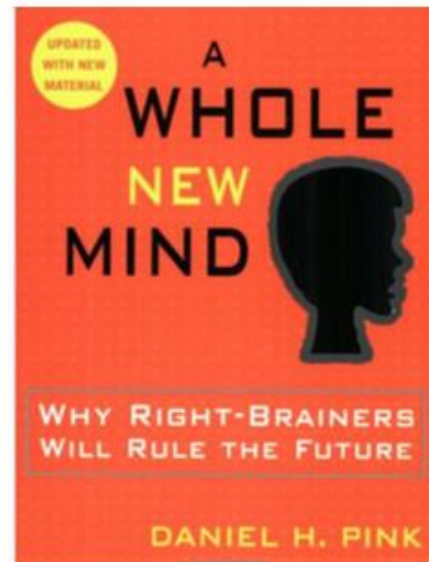
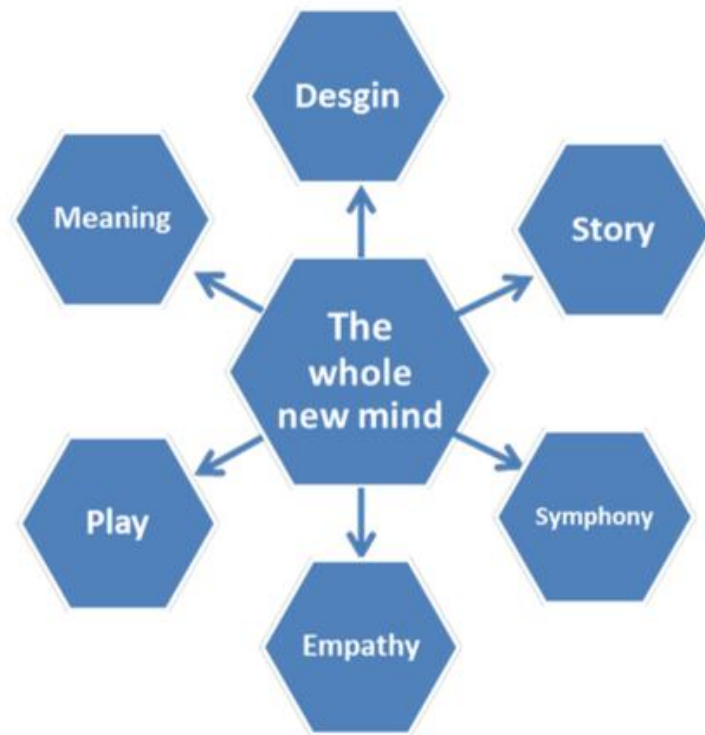
THE OPENSTREETMAP IN HAITI

- Most quality studies were focused on navigation aspects testing the accuracy of spatial data for routing.
- However Haiti example changed the way that OpenStreetMap can be used.
- Haiti was dramatically affected after the earthquake hit in January 12 the capital city of Port-au-Prince.
- *48 hours* spent to get first imagery loaded on the OSM platform available for tracing. (Maron, 2010)
- *60 persons* were trained and more that *700 contributed in mapping*, among them people from UN agencies, NGOs, National Haitian Mapping Agency, National Center of Spatial Information and Haitian civil society. (Waters, 2010)

THE OPENSTREETMAP IN HAITI



A Whole New Mind

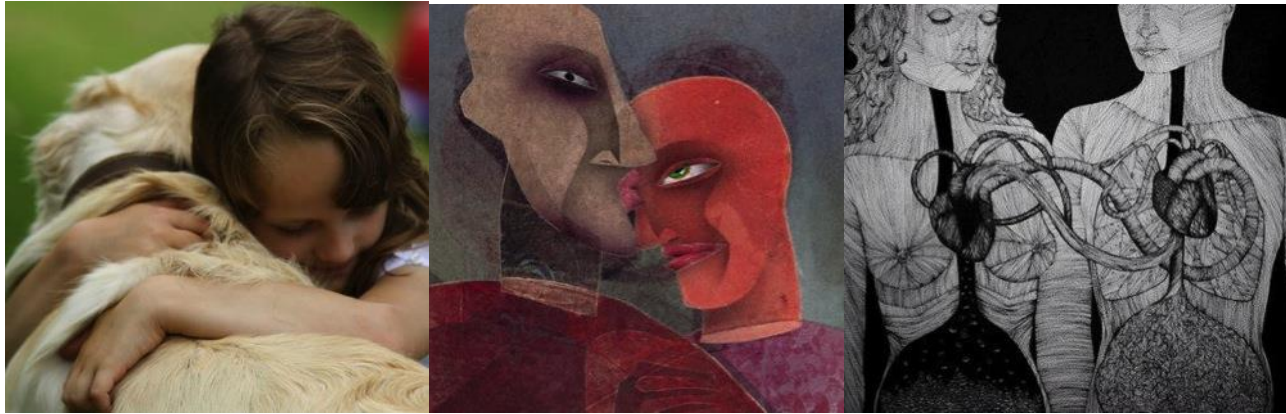


Understanding alt.gis via the whole new mind:

Daniel Pink's Six Senses

Six Trends in Alt.GIS

<i>Design</i>	→	<i>GeoDesign</i>
<i>Story</i>	→	<i>Map stories/location-base story/Geo-Narrative (data curation)</i>
<i>Symphony</i>	→	<i>Synthesis (spatial-temporal synergetics)</i>
<i>Empathy</i>	→	<i>Justice/equity/human rights</i>
<i>Play</i>	→	<i>Play/Geo-games</i>
<i>Meaning</i>	→	<i>Meaning: New Sense of place</i>



Empathy. VGI

Metaphors

- A fountain or spring flowing freely
- Strings tuned to the same frequency.
- Standing in someone else's shoes.
- Looking through someone else's eyes



<http://www.kindredcommunity.com/2013/12/10020/>

- A warm handshake is as important as the invisible hand of the market in order to make the whole economic system work with a higher purpose and meaning.
(Adam Smith)

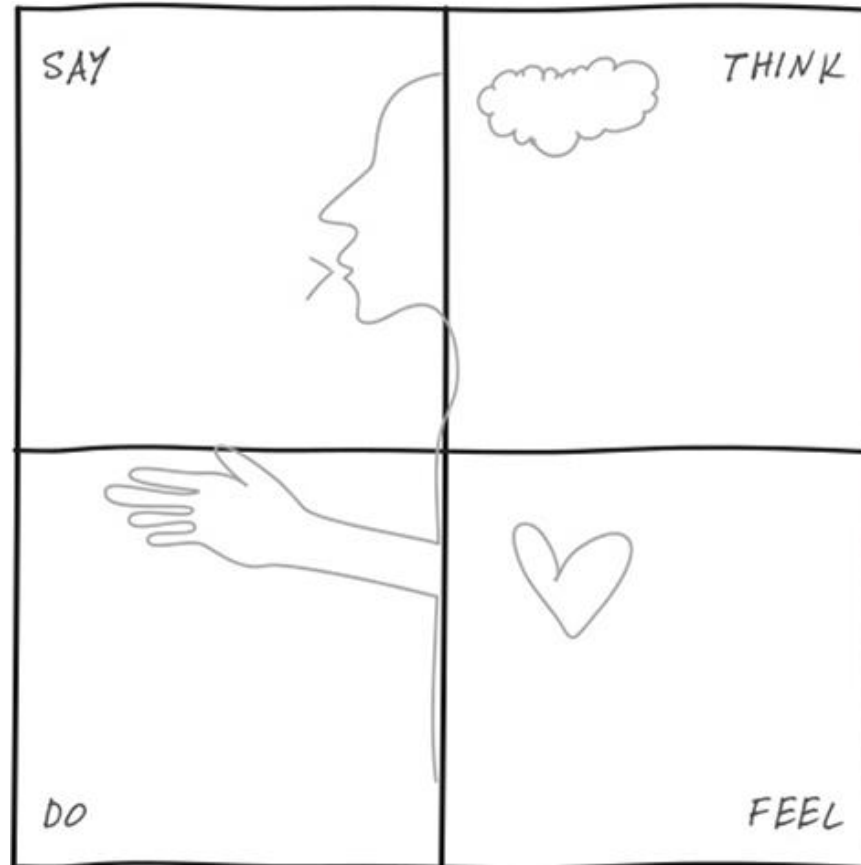
em·pa·thy

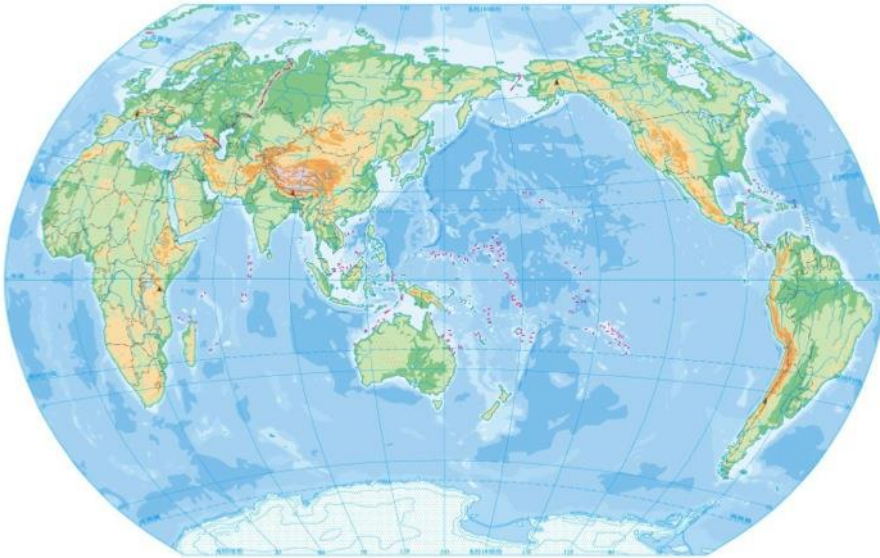
noun \ 'em-pə-thē \

the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another of either the past or present without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner

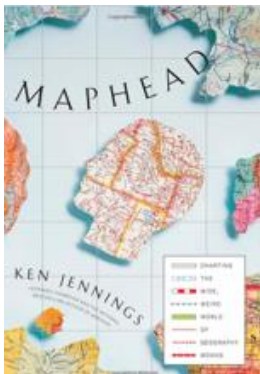
Empathy Map

A Empathy Map can help tee up a discussion about the needs a user has. The discussion will be centered around what was observed, and what can be inferred about these user groups' beliefs and emotions.



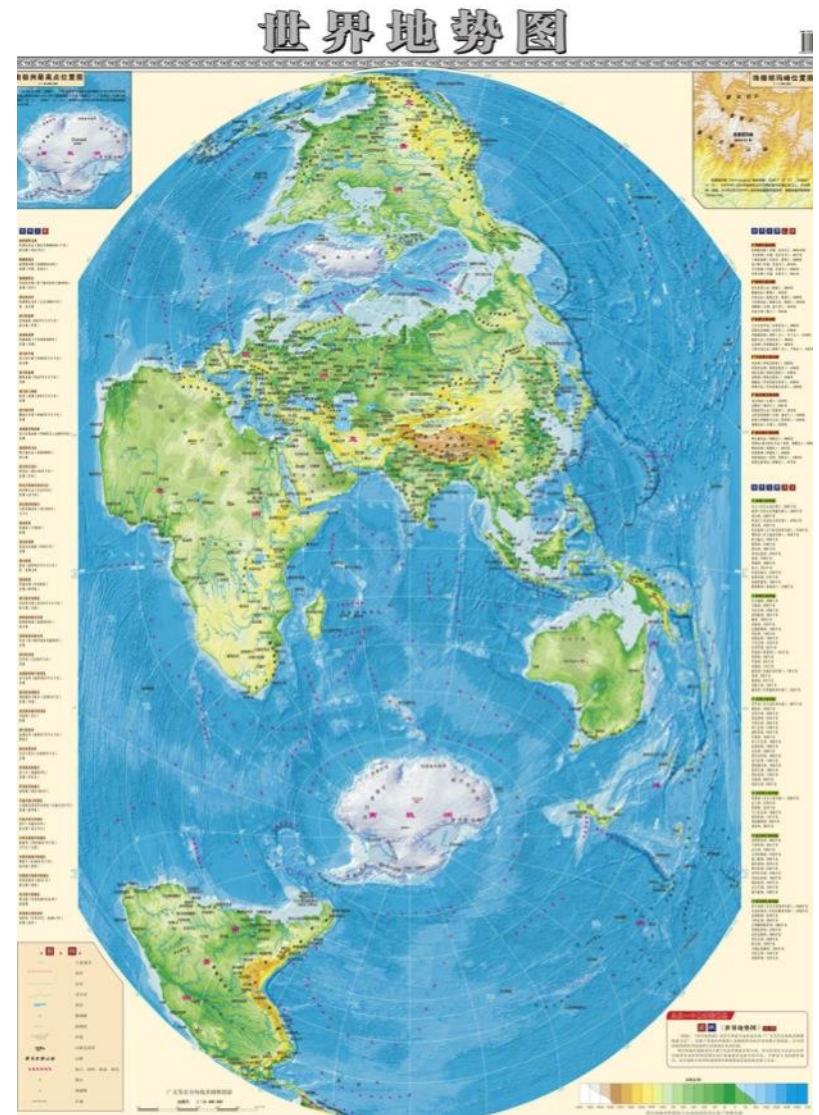


The love of maps.



Jennings, K. (2012). Maphead: Charting the Wide, Weird World of Geography Wonks. Simon and Schuster.

Cartophilla



Worldwide situation of countries according to their respect for press freedom, as provided in the Press Freedom Index by Reporters sans frontières/Reporters without borders. (http://www.nationsonline.org/oneworld/map/press_freedom_map.htm)



In the 19th century, the long important schools of cartography and mapmaking were joined by aerial photography as early cameras were sent aloft on balloons and pigeons, and then on airplanes during the 20th century. The science and art of photographic interpretation and map making was accelerated during the Second World War and during the Cold War it took on new dimensions with the advent of satellites and computers.

Satellites allowed images of the Earth's surface and human activities therein with certain limitations. Computers allowed storage and transfer of imagery together with the development of associated digital software, maps, and data sets on socioeconomic and environmental phenomena, collectively called geographic information systems (GIS).



What kind of VGIs are available or in use for moving critical GIS from dense theoretical discussions into meaningful practices?

Techniques

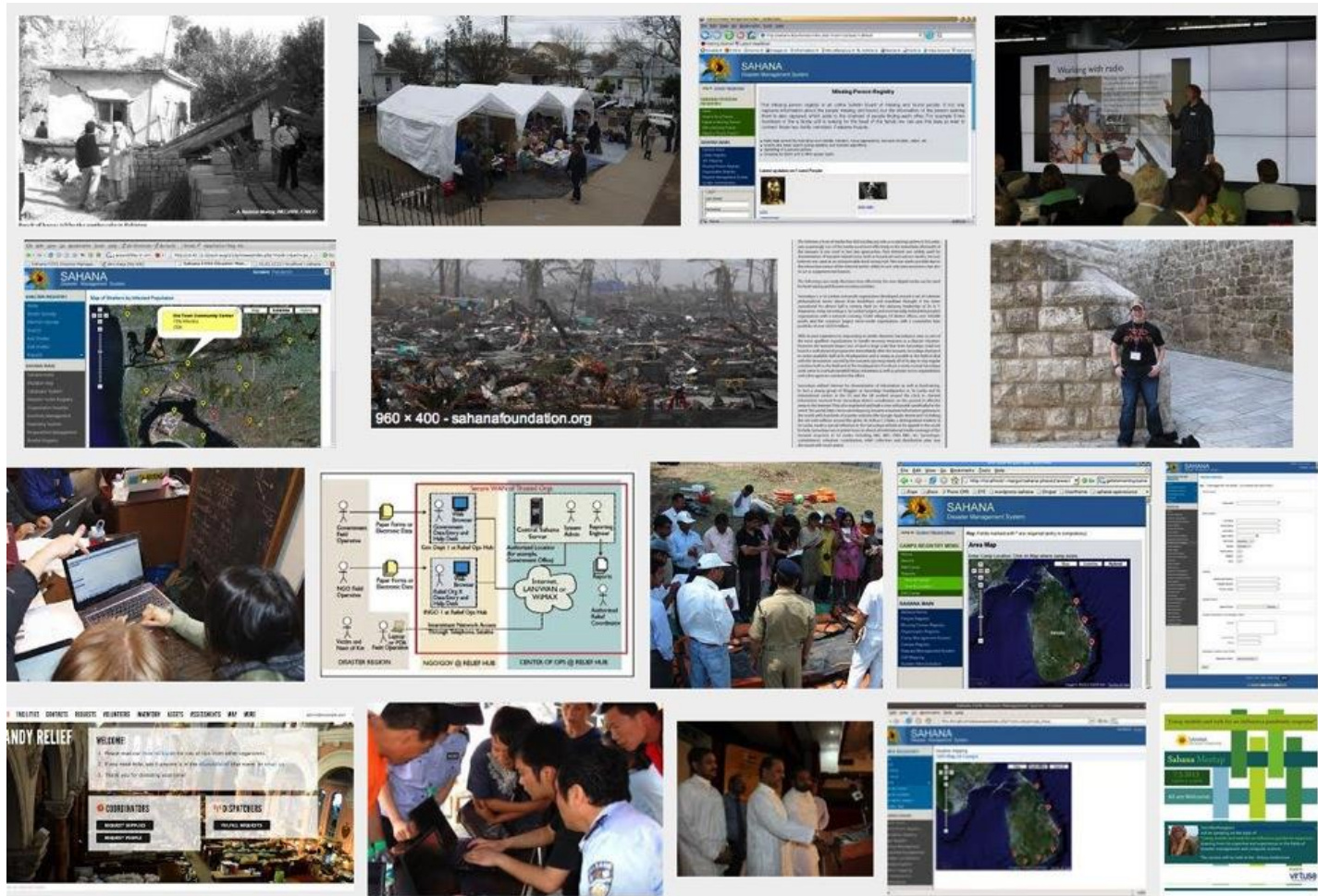


the Arab spring, social media, e.g. Facebook, twitter

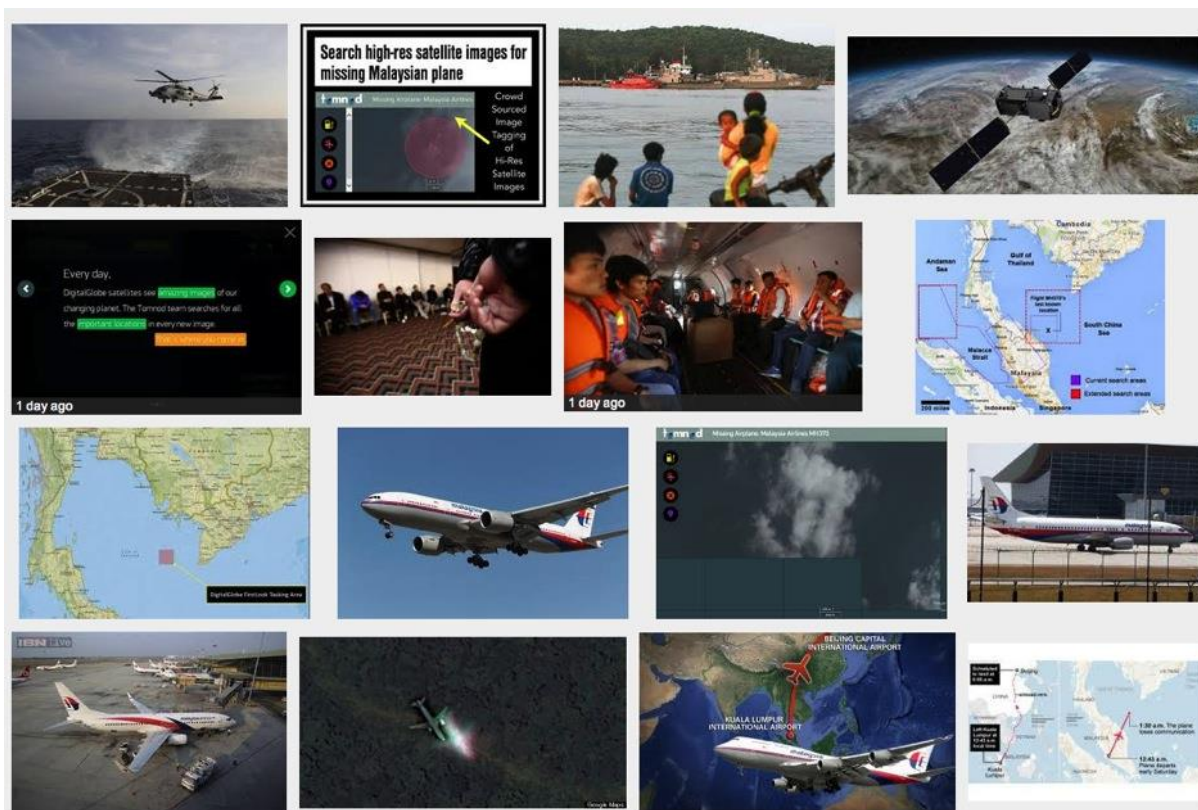
Volunteered Geographic Information, VGI

Sahana – Disaster Management System

Tsunami -- Web mapping for VGI



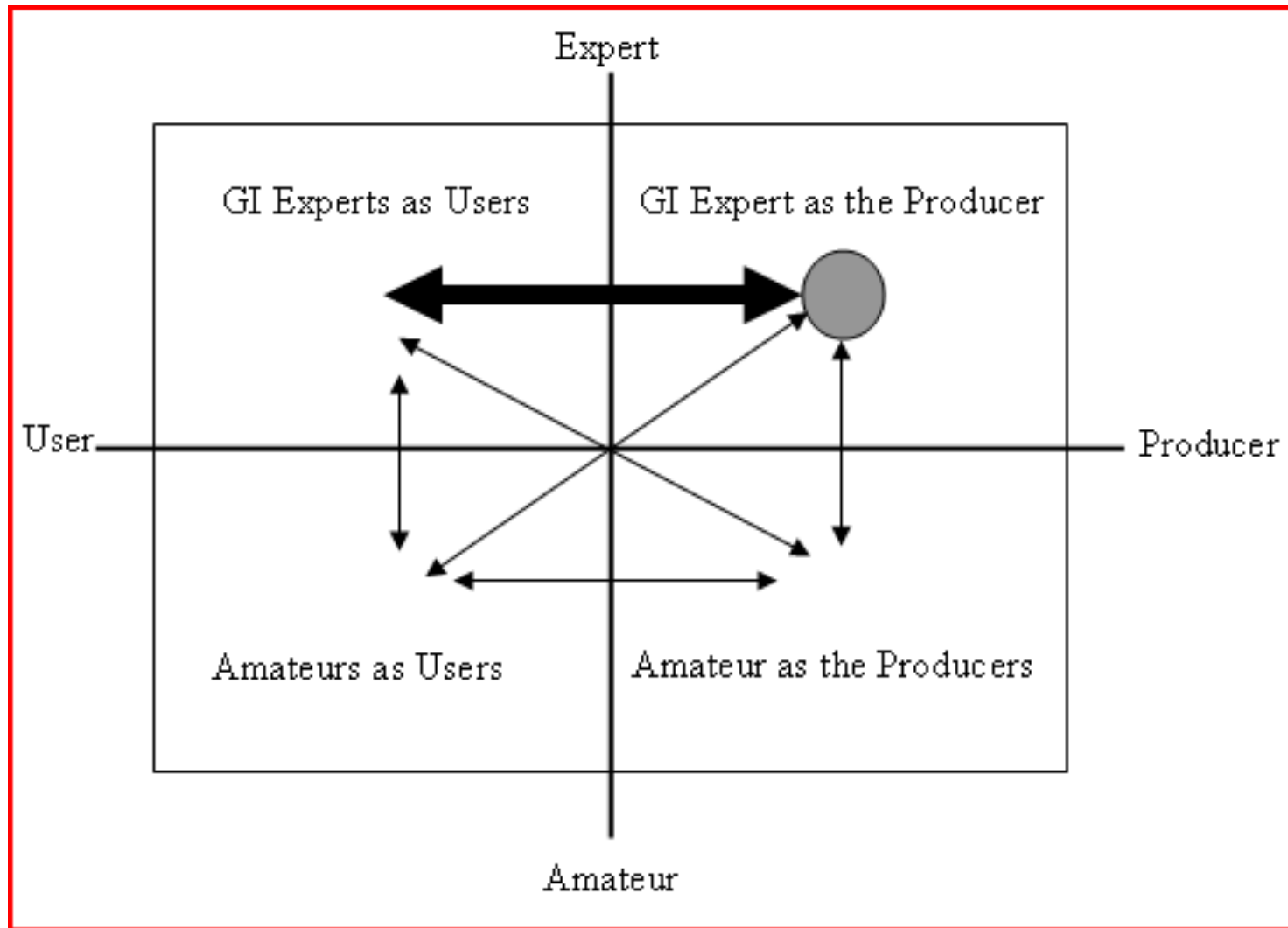
VGI - Digital Globe



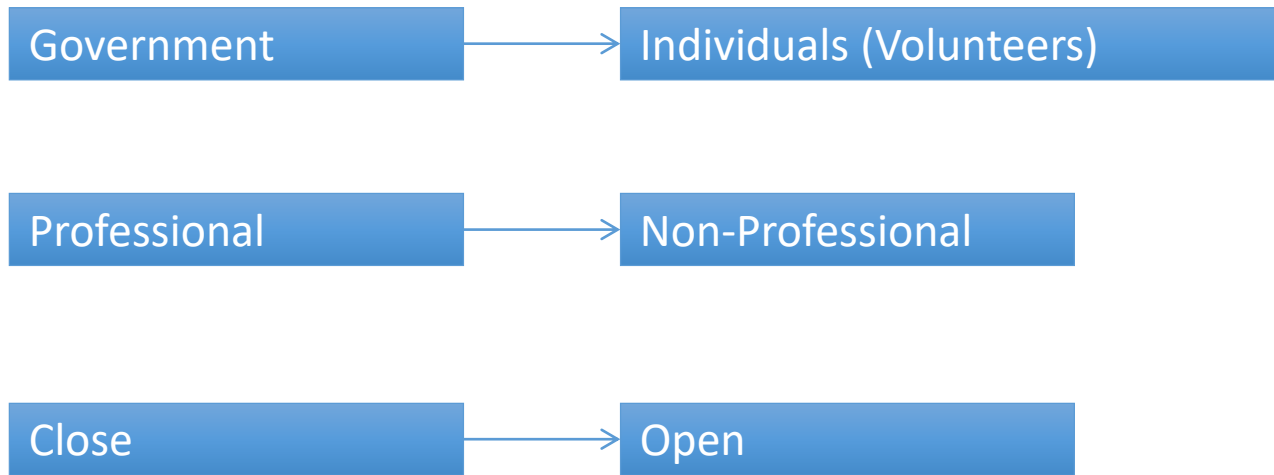
Malaysian Missing Airplane MH370

<http://www.tomnod.com/nod/challenge/malaysiaairsar2014>

VGI and its implications



Budhathoki et. al (2008)



Participants

Governments, Organizations (companies, NGOs, etc.) and Individuals.

***GEOTECH ITSELF IS UNDERGOING A COURSE
OF POWER SHIFT.***



Who is the powerless, and how to empowering with VGI?

Empowering the *powerless*

Ethnic minorities, women, not straights, disables, children *animals*

Women

<http://harassmap.org/ar/>

→ ↻ 🏠 harassmap.org/ar/ ☆ 📧 ✔ 🔊 »

English

من نحن؟ ما الذي نفعله؟ ساعد في إنهاء التحرش الأخبار مركز الموارد للتواصل معنا

امسك متحرش HARASSmap

خريطة التحرش

احصل على مساعدة
احصل على الخدمات مجاناً إذا
تم تحرش بك

بلغ عن حوادث التحرش
بلغنا إذا حدث لك تحرش، أو
إذا كنت شاهداً عليه

شارك معنا
تطوع معنا، أو قدم لنا الدعم
في نواح أخرى

Not Straights – Jack'd, Brenda, Bender

<https://play.google.com/store/search?q=gay,lesbian&c=apps>



Visualizing the gay community in Beijing with location-based social media

Environment and Planning A

0(0) 1–3

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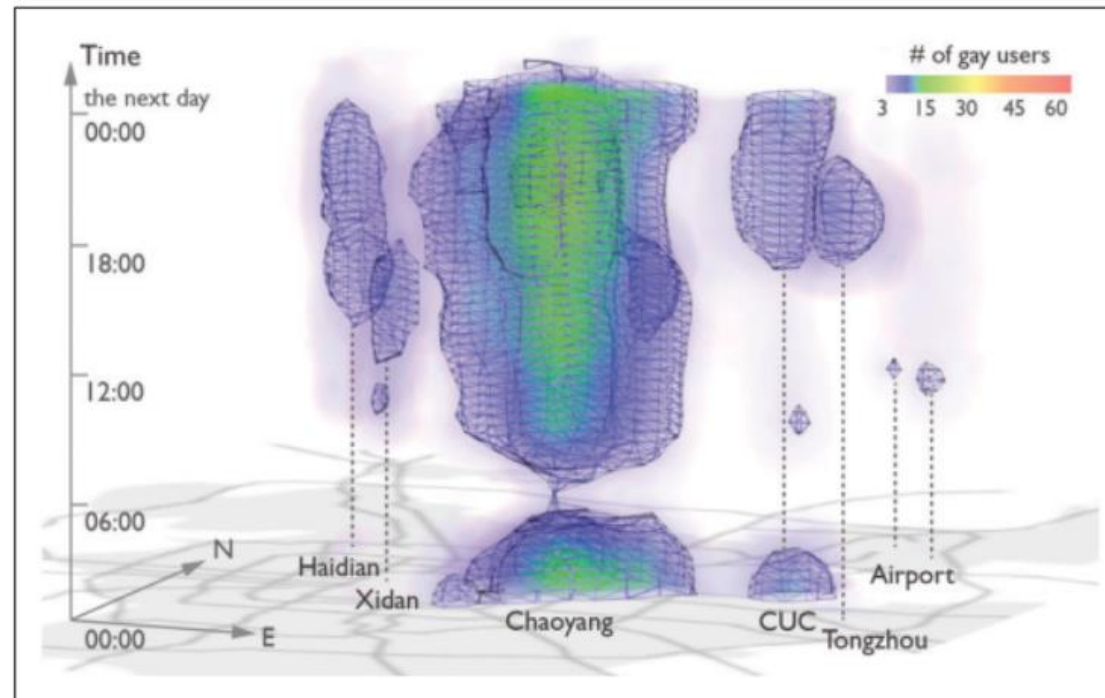


Figure 1. The distribution of gay community in Beijing over 28 September 2016 (authors, 2016).



Free Lunch for Children

<http://www.mianfeiwucan.org/school/schoolmap/>

午餐地图 - 免费午餐官方网站

www.mianfeiwucan.org/school/schoolmap/

免费午餐
Free Lunch For Children

首页 活动资讯 学校动态 在线捐赠 信息披露 午餐论坛 关于我们

責任 让贫困地区的孩子吃上
免费午餐

学校动态

您当前位置: 首页 > 学校动态 > 午餐地图

申请流程
信息公示
稽核反馈
午餐地图

捐赠服务
如何进行捐赠
捐赠信息查询



Animals – Lost pet Atlas

<http://www.lostpetatlas.com/>

lost pet atlas

Search Pets Local Maps How it Works Our Blog

Refine Search

Type of Pet Status

☐ Cat ☐ Lost
☐ Dog ☐ Found

City

State/Province

Zip/Postal Code

Search

User login

* Username:

* Password:

Log in

Request new password

Find Us on Facebook!



Lost Pet Atlas 206

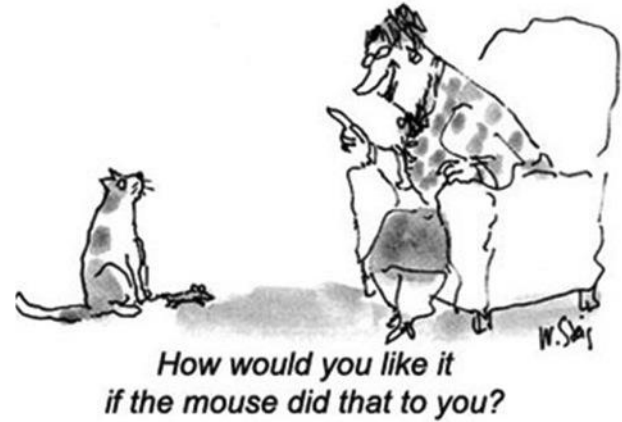
Share Online

Lost Pet Atlas is shutting down effective March 31, 2014. Click here for more information

Map Hybrid

Map data ©2014 Google, INEGI Terms of Use

Status	Type	Image	Name	Date	City	State/Province	Postal Code
Found	Dog		Red	Fri, 2013-11-22	Tiger	Georgia	30576
Lost	Cat		Teddy	Thu, 2013-10-17	Barberton	Ohio	44203



1. Protect the Human Rights?
2. Digital Divide

Murphy's Law: Information is usually the least available where it is most needed.

Love and pain

Technology is always a double-edged sword.



**KEEP
CALM**

AND

**DON'T WORK
TOO HARD !**

Empathy to our own body!