Social Facts - Paper 2
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Group Analysis: OpenStreetMap

1. What is the group's stated reason for being? What or whose needs does it serve? Do they seem to be succeeding?

OpenStreetMap.org (OSM) is an online collaborative community mapping project of the whole world. The project describes itself in several ways. Here are a couple descriptions of the group from the site's documentation wiki:

"OpenStreetMap is an editable map of the whole world, which is being built largely from scratch using GPS traces, and released with an open content license.

The OpenStreetMap License allows free (or almost free) access to our map images and all of our underlying map data, and the project aims to promote new and interesting uses of this data." (http://wiki.openstreetmap.org/wiki/About)

"OpenStreetMap (OSM) is like Wikipedia for maps. People gather location data with GPS devices or from free satellite imagery, upload it and add names and other tags. The resulting free map of the world can be viewed at www.openstreetmap.org.

OpenStreetMap creates and provides free geographic data such as street maps to anyone who wants them. The project was started because most maps you think of as free actually have legal or technical restrictions on their use, holding back people from using them in creative, productive, or unexpected ways." (http://wiki.openstreetmap.org/wiki/Beginners%27_Guide)

The words "open" and "free" in the context of the descriptions above refer to the broadly shared general values of the open source and free culture communities. OpenStreetMap is "powered by open source software from the slippy map interface, down to the underlying data access protocol (a web service interface for reading and writing map data)" (http://wiki.openstreetmap.org/wiki/About). The OpenStreetMap License mentioned above refers to the Creative Commons Attribution-Share Alike (CC BY-SA) license. The CC BY-SA license allows users to share ("to copy, distribute and transmit") and to remix ("to adapt") contents of the OpenStreetMap. When it comes to

ownership of the data, the FAQ states that "the data and software is owned by you, the contributors...There is an organization called the OpenStreetMap Foundation which exists to protect, promote, and support the project, but does not own the data" (http:// wiki.openstreetmap.org/wiki/FAQ). The choices in the ownership and licensing structure make logical sense considering that part of the group's stated mission is to promote "new and interesting uses" of map data. In this way, success should be measured not just in use, but also reuse of the map.

In terms of success, OSM has fairly complete maps in urban areas across the developed world. The sites stats page shows a slow start to growth when the stats started in 2005, and rapid exponential growth in the last two years (http:// wiki.openstreetmap.org/wiki/Stats). There is a June 2009 heat map that shows the distribution of the map data: http://wiki.openstreetmap.org/wiki/ File:Tah_heatmap_june2009.jpg. It shows, predictably, that there is a lot of mapping activity in the US, Western Europe and other developed industrialized countries, but also some "hot" outliers like eastern Greenland and a town somewhere in Siberia, which seems to indicate an area where local cartographers, whether professional or amateur, have found some sort of special motivation to map out their regions which have been traditionally considered "fringe" or "marginal."

2. When does the stated rationale for the group's work become part of the conversation among the members? When not? Can you observe any differences between individual motivations and stated rationale? What, if anything, motivates the participants other than the stated rationale?

Conversations among members happen in several places. OSM has an event calendar of offline meetup events for members around the world (http://wiki.openstreetmap.org/ wiki/Current_events). They also have a number of email discussion lists in various languages (http://lists.openstreetmap.org/listinfo), an online forum (http:// forum.openstreetmap.org/), and an IRC chat room.

A browse through the email archives and forums reveals that most conversations are functional and relate to technical support and how-to's rather than ideological discussion about motivations.

The FAQ in the OSM wiki outlines the official stated rationale of the project:

Geographical data (geo data) is not free in many parts of the world, like the United Kingdom. Generally these places have given the task of mapping to various government agencies who in return get to make money by selling the data back to you and me. If you live in one of these countries, then your taxes pay for the mapping and then you have to pay again to get a copy of it. In the USA crude data (such as TIGER) from the government, is in the public domain, however refined data and finished maps are generally commercially copyrighted.

Data from commercial mapping agencies contains lies, or Copyright Easter Eggs, to catch out anyone copying it. These easter eggs take the form of fake or missing streets, or features like churches and schools that don't in fact exist. If you make a map using their data, they can say "ah-ha! Gotcha!" from looking if you also copied these fake pieces of map. The map may also just be incorrect because for example you bought it a year ago and a path has been dug up in your local park since, or someone just made a mistake.

If you accept all of this then you still can't do anything with the data but photocopy it. In lots of places that's illegal too if you go beyond your fair use rights. You can't correct a street name, or add the pub/bar over the road, or use the data in a computer program without paying a lot of money. More money than you probably have. What about sending it to a friend, enclosing it in an invitation or posting it on a notice board? A lot of these are less legal than you might think.

Advances in technology like cheap GPS units mean you can now create your own maps, in collaboration with others and have none of the restrictions outlined above. The ability to do so allows you to regain a little bit of the community you live in - if you can't map it, you can't describe it. (http://wiki.openstreetmap.org/wiki/FAQ)

This kind of rhetoric sets up an "us versus them" dynamic between members of the OSM community and governments and commercial interests that restrict access and reuse to their maps. This serves as a way of motivating OSM users to try to do things better and contribute to the project. This anger towards governments and corporates is balanced against the warm fuzzy community rhetoric of OSM in phrases like "regain a little bit of the community you live in." In this way, the motivation is not only frustration with copyright and data access regimes but also a sense of local pride.

3. How does the group disseminate its work or otherwise create value for non-participants?

The contents of the map and accompanying documentation are all freely available online at openstreetmap.org. Anybody with an internet connection can view the map, download map data in various formats (including vector formats which make it particularly easy to reuse the maps in print), and reuse/remix the map data. Based on the terms of the CC BY-SA license, end users can pretty much do whatever they want with the data provided that the provide attribution and allow others to reuse their derivative works based on the same or compatible licensing terms.

The agency where I work did a mapping project for a client last summer that used OpenStreetMap. The client was particularly concerned with controlling their branding, so OpenStreetMap, which allows for complete creative skinning and rebranding, was chosen over Google Maps or other proprietary online map providers. While this provided design flexibility, the resulting user experience map navigation was not as good as Google Maps, in that it is harder to navigate and there are glitches when zooming in and out of the map. As a result, the client has relented and a future version of their map will be made using Google Maps. That being said, this story is an interesting example of how OpenStreetMap can be reused, even for commercial projects.

4. Imagine one change to the group. It can be a change in members, tools, or tasks. What change could you imagine, and what might the effects on the group be, good, or bad?

One change I could imagine is a change in the tools available to the group, or more specifically, a greater proliferation and popularization of the tools used in logging and mapping data. This would possibly lead to a lowering of the technical barriers to contributing to the map.

The standard way of gathering and editing map data, as described in the beginners guide, requires five steps and at least two different devices (http://wiki.openstreetmap.org/wiki/Beginners%27_Guide). Contributors gather data on a GPS device, or from photographs and maps that they have created themselves, they then have to upload the data using a computer and edit it to conform to the OpenStreetMap format using an online or standalone application, and finally they render the map data on their own computer or through the online tool. As someone with an above-average computer savvy but who has never made a map before, I found even the beginner's guide a bit overwhelming. Furthermore, the need for at least two different devices to

gather, edit, and upload data makes it even less likely that I will contribute unless I am a super-motivated mapper. One way of streamlining the process is to use an iPhone or other smart phone, since it already has built-in GPS, camera, internet connection and browser. Indeed, OpenStreetMap already has a number of tools that allow users to view and contribute to OSM from an iPhone: http://wiki.openstreetmap.org/wiki/IPhone. While it it interesting to see the variety of resources available, there is no single simple solution for using OSM on the iPhone. What if an easy to use application for viewing, creating, and editing OSM data came standard on iPhones and other smart phones instead of Google Maps?

By further lowering the technical barriers to participation, would iPhone users everywhere start mapping en masse? It's hard to say, considering the comparison with Wikipedia, where the technical barriers to editing and writing articles is much lower, but still only a small percentage of users actually contribute new content. Just because the tool exists and is easier to use does not necessarily mean that people will use it. It's hard to imagine what the motivation would be for a non-map enthusiast to create a map from scratch, although maybe people would contribute with small edits like the majority of users in Wikipedia. But even then, it is easy to correct typos or glaring factual errors in Wikipedia, but it is hard for the average user to notice when map data is wrong unless that map is of an area that they know particularly well (or maybe I am projecting my own directionally-challenged bias?).

If we assume that the lowered technological barrier to participation actually does result in more contributors, then the community will have to deal with the issues of success in the form of abundant data. With such abundance will also come abundant noise, in the form of bad map data, whether it is intentional or not. More contributors will require more "referees" and editors to ensure the quality of the map data. Even if we ignore malicious vandals for now, as more amateurs contribute, they may make more mistakes in mapping and editing data.

For a public good like maps to be truly useful, it must be accurate. OSM will have to deal with that issue of reliability in the same way open projects like Wikipedia have had to address that issue. Existing proprietary products already provide a high degree of perceived trustworthiness for most casual users, even if they are only free as in beer and not free as in speech. Even with a lowering of technical barriers, only a small percentage of users would be interested in making derivative works that might face legal copyright issues. It's interesting that OSM addresses these legal barriers by going around them and creating their own free alternative, rather than on policy advocacy

efforts to lobby for governments making their map data accessible and public domain in areas where it is not. Given the seemingly tight knit OSM community and their ability to organize offline mapping meetups, this might not be too far-fetched of an idea.

In recent news, the UK Ordnace Survey began releasing their map data for free re-use on April 1, 2010 (http://wiki.openstreetmap.org/wiki/Ordnance_Survey_Opendata). As more and more data is released in this way, it will be interesting to observe how it is incorporated into OSM, and whether the release of such data will have any impact on the incentives for individual users to participate.

Appendix - Group Google Doc Notes

Groups for social good

Cameron:
Icarus Project - online group focused on creating community for people with mental illness, and to enact change in the medical system
http://theicarusproject.net/

Lee-Sean:
Open Street Map - open and collaborative version of Google Maps
http://www.openstreetmap.org/

Change.org - social network for activists, allows anybody to create a petition for change
http://www.change.org/

Meedan - crowd-sourced English-Arabic/Arabic-English translation for cultural understanding
http://news.meedan.net/

Global Voices
http://globalvoicesonline.org/

Candice:
Idealist
http://idealist.org/

Noah:
http://coroflot.com
Part of core77, a website that was created for businesses and designers to find each other for job placement. Businesses post jobs. Designers post portfolios.

http://aestheticsofjoy.com/
A Pratt grad student created a blog to make inspiring, design related posts. Readers interact through comments, add their own posts, and cross-communicate. The site makes users feel happy, and has been featured in psychology magazines because of its uplifting tone.

Question: Is there a difference between a group with members who get regular email updates versus a blog with subscribers who get regular emailed posts?

Noah's Notes and Noteworthy Quotes:

"The project was started because most maps you think of as free actually have legal or technical restrictions on their use, holding back people from using them in creative, productive or unexpected ways." Have they really created a solution to others' "techincal restrictions"?

(http://wiki.openstreetmap.org/wiki/Press)
See Press Contacts for people in the project willing to be contacted by journalists.

(http://community.cloudmade.com/blog/wp-content/uploads/2010/01/100106-OSM_Facts.pdf)

"Established:
August 9, 2004
Members:
200,000 (500 new per day)"

At the rate of 500 new members per day, it would only take 400 days (1.1 years) for them to reach their current user total of 200k. However, they were established nearly 6 years ago.

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"It's FREE! The underlying map data is free to use and manipulate - other maps may appear this way but actually have many copyright restrictions."

"Others may appear" is a gentle way of declaring, "we are authentic. we're the real thing. we've earned our bragging rights." Its as if they've won a war that no one even knew existed. Is googleMaps such a bad thing? Do i find the copyright restrictions to be the least bit limiting?

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I can see that the two maps are unique from one another, but it's impossible to rate one or the other as better or worse in any way.

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when looking at the ultra hi-res map of london (http://wiki.openstreetmap.org/w/images/2/2c/GreaterLondon.png) I can begin to see the benefit of this utility. Clearly when offline, the resolution alone is superior to anything else. I think that, like most open source projects, there is a certain pride/arrogance/delusion tied into the community. Sure, if I plug in lots of hours of my own time to create an entire obsessive, customized experience, I will enjoy the results of it. But who has time to do that? Seemingly the incentive to develop and contribute is greater for those living in isolated, low population areas that otherwise are "off the map" and not of much detail, elsewhere. Meanwhile, the incentive to leach is greater for those in high population areas, because the density and completeness of the map is dependent on the amount of resource applied. Prosumably the small number of total users is an inherant problem, as anyone who lives in a densely settled area probably finds the google/MS/yahoo experience sufficient.

General comments from Clay: Zoom in on the one to one relationships to see what interaction is there.

Comments by Lee-Sean

The agency I work for was able to use OSM for a mapping project for a client that are extremely picky about their brand image. They that wanted to white label their map and avoid the Google logo.
But the final result came out pretty wonky and some regions (they had users from around the world) where not thoroughly mapped.
For version two that we are building for said client now, we are moving to Google Maps.

Maybe down the line, OSM will mature and have better international coverage.

Also, it's interesting that there is no advocacy aspect to the community. If map data is already being collected by governments, I wonder why they don't try to petition to have them made public domain so they can be used by the community.

Oscar

There are two main things that caught my attention

1.There are sites using OpenStreetMap.

On-line raster maps

OpenSeaMap.org
Mapping is available online both on general mapping sites:

Map
Theme
Area

OpenStreetMap
general, cyclists, debugging
Worldwide
Information Freeway
general, almost realtime
Worldwide
OSM WMS Servers
general, Web Map Services
Worldwide
OpenSeaMap
nautical chart
Worldwide, multilingual:
seas, oceans and waterways
OpenStreetBrowser
features highlighting
Europe
FreeMap
walkers
parts of the UK
Topo
walkers and riders
Austria, Germany, Switzerland
OpenCycleMap
cyclists
Worldwide
YourNavigation
routing
Worldwide

[OpenRouteService](#)
routing
Europe
[OpenPisteMap](#)
skiing
some European and USA resorts[20]
[CloudMade](#)
general, mobile and various other custom styles
Worldwide
[NearMap](#)
up-to-date photomaps
populated areas of Australia
[ÖPNV-Karte](#)
public transport
Europe
[OSM Mapper](#)
Debugging maps by Ito World Ltd
[ScribbleMaps](#)
Mapping Annotation
Worldwide
[[edit](#)]
[[edit](#)]
Flickr

Yahoo has started using OpenStreetMap data within its [Flickr](#) service for various cities around the world, including [Baghdad](#), [Beijing](#), [Kabul](#), [Sydney](#) and [Tokyo](#).[28][29][30]

[[edit](#)]
Blogs

The [WordPress](#) OpenStreetMap plug-in inserts maps and adds geo meta tags to posts / pages of WordPress [blogs](#).

2.The second thing is that you can actually export any type of file out of OpenStreetMap even SVG, which is really helpful.

It's clear that the main real benefit anyone can get out of this is the ability to edit, the data for personal use, or to use in a very small niche.

CAMERON

Quotes from "user diaries"

Street maps as ideology:

As I heard from CloudMade top-guys, great battle between Google, Microsoft, ESRI and some other cartography companies begins. There are MapQuest, Yahoo among others. These companies will invest a lot of money in map and mobile services in the nearest future. Hence they have decided to hire a lot of GIS professionals. As OpenStreetMap is one of the best GIS-related community, they are interested in many of us.
What I know for sure is Steve Coast was proposed to lead one of the Google Map Maker department.
Meanwhile other companies wants to hire as many OSM people as they can, so Andy Allan, Richard Fairhurst, Frederik Ramm and Simone Cortesi already has propositions.

Please Steve, if you read this, remember all these minutes you've spent for OSM, remember people you've worked with and make the right decision. You are the face of this project and we will do miss you.

Please everybody, retweet it.

as fun:

Have you ever played Risk? It's multi-player board game where you try and take over the world. Whenever I played it, I liked holding Australia because it seemed a good secure place. It was also a good place to get stuck in, so that strategy never seemed to work out. However, it's the same strategy I'm adopting with my participation in the Duplicate Nodes project (http://matt.dev.openstreetmap.org/dupe_nodes/about.html)

as collaboration:

I've looked at the mapping of Cody, WY, USA, and it needs a lot of work. It seems there has been some recent work besides my own. Is anyone working to improve Cody, WY map, and if so do you wish to collaborate? I don't live in Cody, so I won't know street names unless I look them up on Yahoo map or elsewhere, however, I am able to fix street alignment, and get rid of places where streets seem to overlap, etc.

as serious business:

Just a heads up for Eugene-area editors, it appears that fresxcf is torquing OR-569, the Eugene city limit and the relation for OR-569 in an attempt to vandalize the map in response to the recent article about OSM in the Eugene Register Guard.

The user in question was contacted about his edits, and at 20:10, replied that he doesn't care what the name really is, he's going to continue torquing the tags. Keep your eyes peeled.

as mission

Dear OSM community ladies & gentlemen, If you don't afraid that CIA tracks you, please show your real name on your profile pages. It is always good to know.