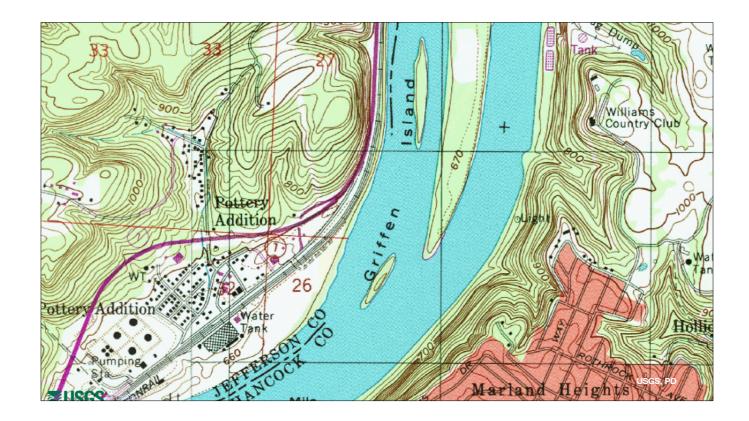


Handling disputes on a map that anyone can edit

[[User:mxn|Minh Nguyễn]], Mapbox WikiConference North America 2018

Hi, I'm Minh Nguyễn, and I'm going to talk about geopolitical disputes and vandalism on OpenStreetMap. This is a sequel to a talk I gave two years ago at WikiConference North America in San Diego. I'll give a brief introduction to OpenStreetMap in this presentation before diving in. But if you're unfamiliar with OSM, I highly encourage you to check out that talk, which is linked from this talk's page on <u>wikiconference.org</u>. Also, thanks to my employer Mapbox for not disputing my idea of coming here this weekend.



Before I begin, since we're in Ohio, here's a bit of border trivia. Did you know that Ohio had a disputed border with Kentucky and West Virginia until about 30 years ago? This is a USGS topographic map of the Ohio River. The border between Ohio and West Virginia is represented by this dashed line, but see how it abruptly ends, then continues after Griffen Island? At the time this map was first drafted, it was unclear which state owned certain river islands, so the USGS stayed neutral by drawing no border. A 1980 Supreme Court ruling defined the border as the northern bank as of 1792, but because the river has changed over time, it took another decade for the states to reach a settlement defining the border. West Virginia ended up with Griffen Island.

"It's the Wikipedia of	"

OK, so what is OpenStreetMap?

Do you ever hear this? "It's the Wikipedia of \_\_\_\_\_"? I live in Silicon Valley, so I hear it wayyyy too often.



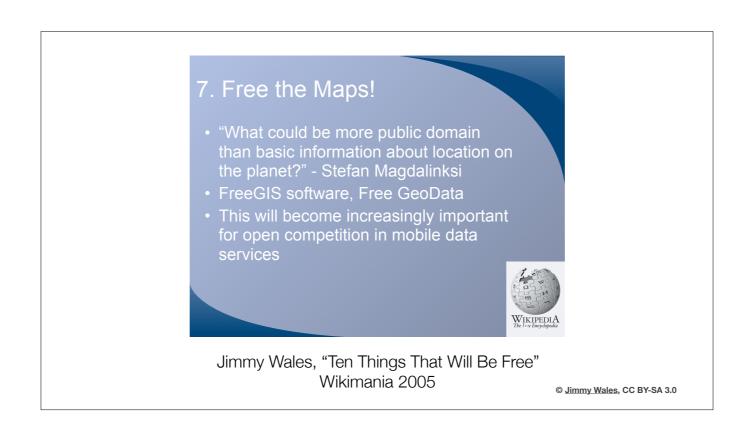
Oh, well, fortunately I don't hear this one.



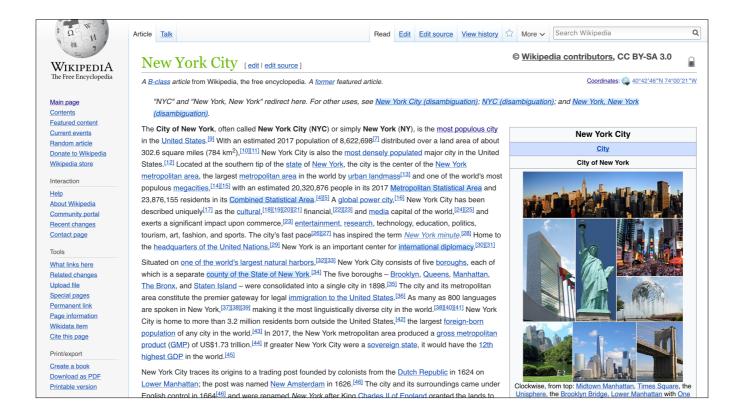
But OpenStreetMap is the Wikipedia of maps, and it isn't just trading on Wikipedia's good name.

# Worldwide Hyperlocal Free and open

OpenStreetMap is a project to build the most detailed map of the world possible. These are the three things that make it most like Wikipedia: it's global; it's comprehensive, which in the case of a map means hyperlocal; and it's free and open. Like Wikipedia, the map is built primarily by volunteer contributions, and it's accessible to everyone to use for any purpose.



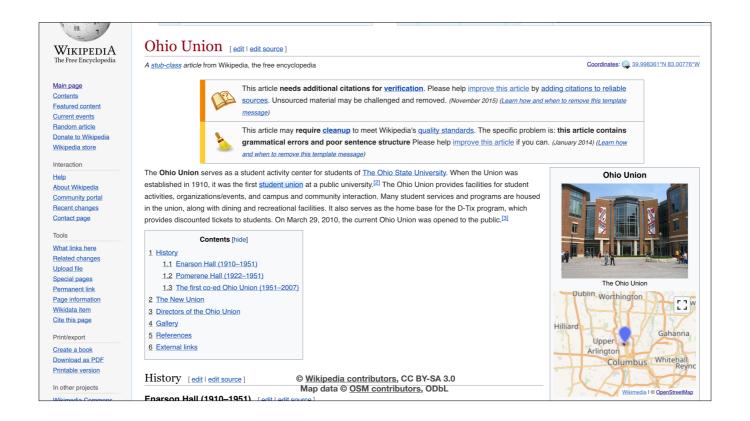
OSM isn't run by the Wikimedia Foundation, so why do I keep showing up at Wikimedia events talking about it? Because it's still part of the Wikimedia movement in spirit. Was anyone here at the inaugural Wikimania in Frankfurt? Jimmy Wales had a list of 10 things besides encyclopedias that needed to be Free, and #7 was geographic data, basically OSM.



I'm happy to report that, in the 13 years since, we've gotten to the point where maps a first-class citizen in the Free Culture movement. Go to a geographical article like New York City, and scroll down...



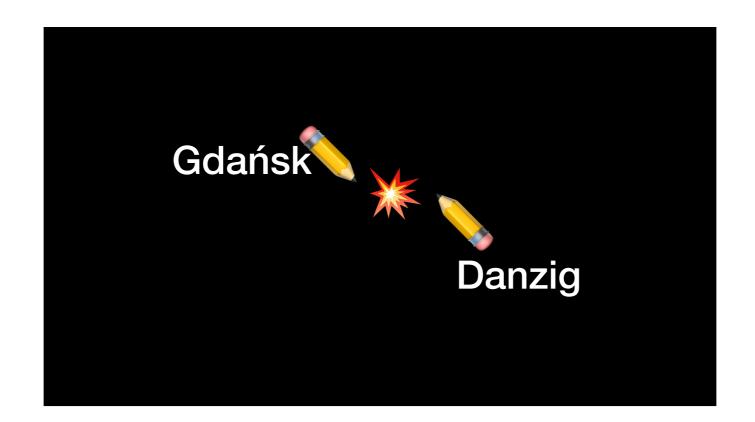
And here's a map powered by OSM right in the infobox, with a boundary from Commons overlaid. This isn't just a static map uploaded to Commons. If you click the icon in the top-right, you get an interactive, draggable map.



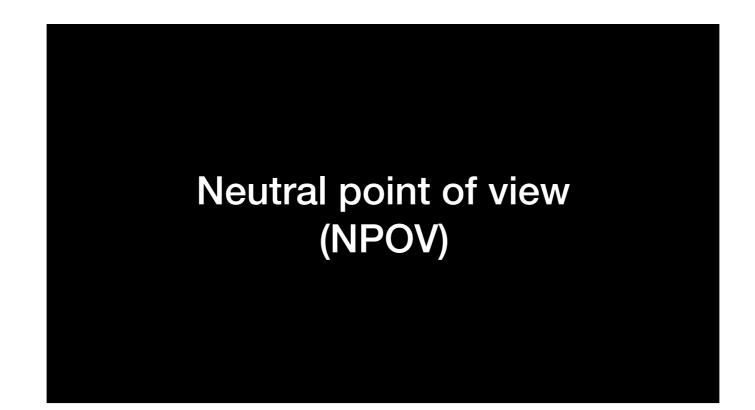
I'd be remiss if I didn't provide an example from the Buckeye State here.



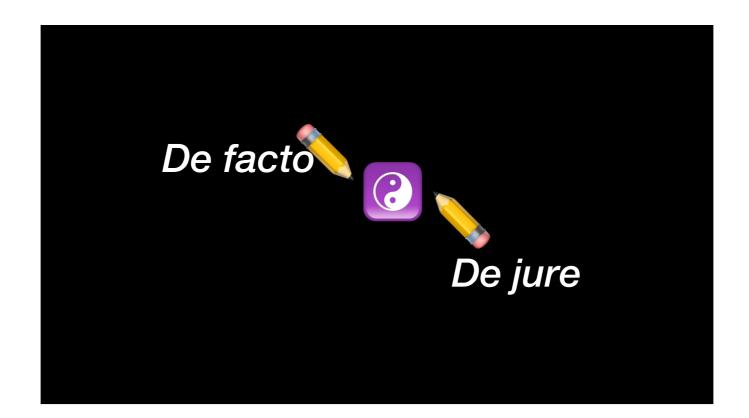
Now here's where things get ugly: disputes, especially geopolitical disputes. The Wikipedia community maintains a page called "Lamest edit wars".



One of the first and lamest edit wars was over the city of Gdańsk, also known as Danzig. People moved the page back and forth, back and forth between the two names ad nauseum.



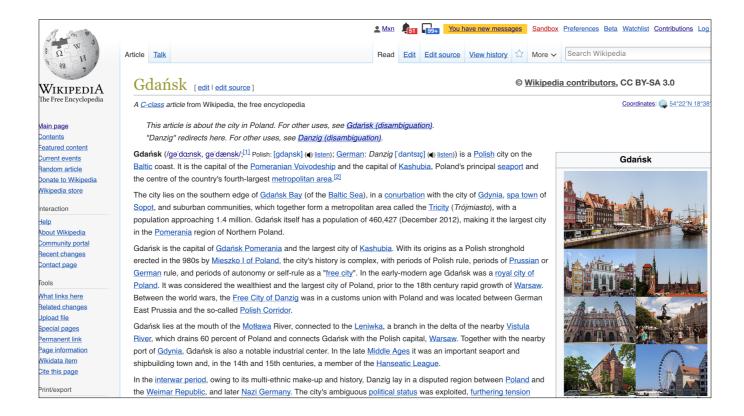
Wikipedia's neutral point of view policy is intended to head off edit wars.



In the case of geography, it means the article should give a fair amount of weight to all the significant sides of the debate. If the place has one de facto name but another de jure name, it should discuss both in context.



But an article can have only one name, so to avoid disruptive edit wars over the article's name, the common name guideline essentially favors the de facto name.



Which in this case meant Gdańsk. The article hasn't been moved in awhile, so I guess the lame edit war is over.

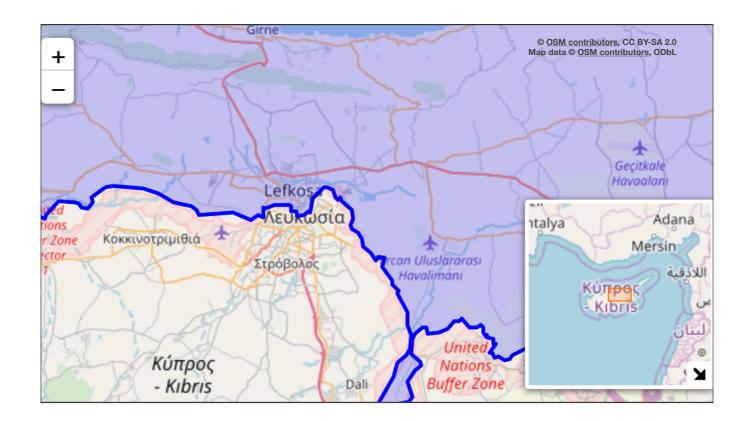
## Geopolitical disputes

- Names
- Borders (... is in ...)
- Nationalities

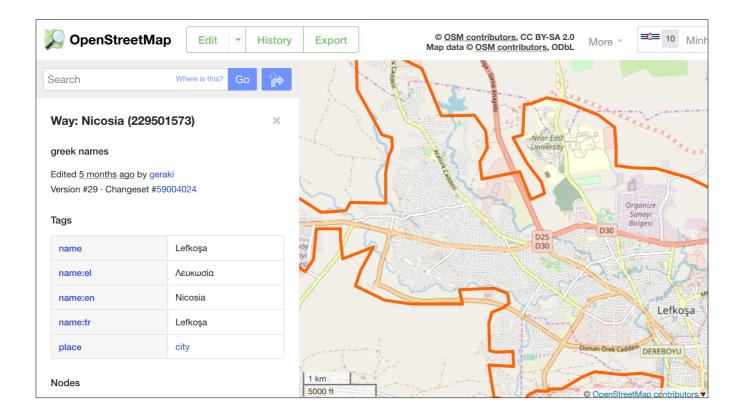
So far I've talked about naming disputes, but it's important to understand that disputes occur over not just names but also borders. The path of a border can affect how we describe the location of a place, such as Griffen Island in the Ohio River. And in Wikipedia, that border can even affect other details like a person's nationality.



But enough about Wikipedia. How does OpenStreetMap deal with these same issues? After all, a dispute on OSM is very likely to be a geopolitical dispute.



This is the site of the first edit war in OSM almost exactly a decade ago, on the island of Cyprus. In November 2007, mappers went to war over the use of Greek or Turkish names for places and roads in Turkish-controlled Northern Cyprus, which is highlighted here.



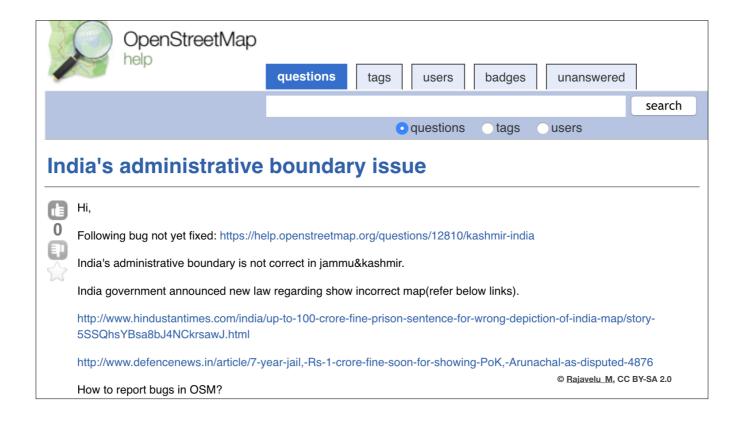
Ultimately, the OSM community agreed on naming features based on the de facto language, which is Turkish. Anyone is free to create their own map that draws from the Greek, Turkish, or English name tags, which are provided, but there's still a default local name tag that affects the main map on openstreetmap.org. It's this tag that mappers disagreed on, because it's the most impactful tag. Unlike Wikipedia, there's no room for nuance and explanation.



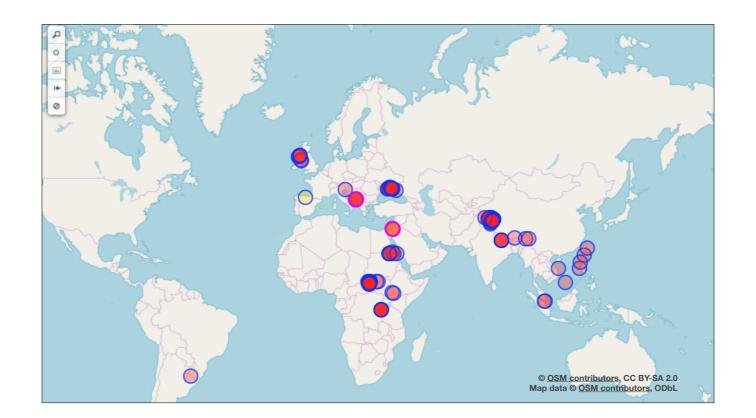
OSM's approach to geopolitical disputes is deceptively simple: map what's on the ground.



For the most part, mappers take that to mean map what's on signage. In other words, we default to the de facto names and borders.



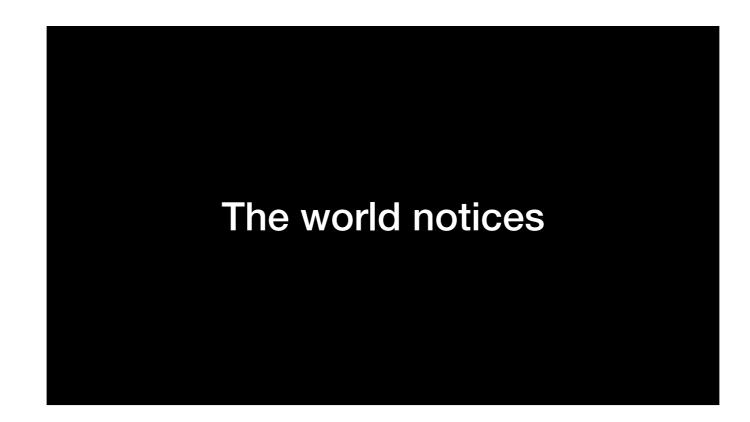
Obviously not everyone agrees with the resulting map. This is a typical example of the sort of feedback OSM gets regarding boundary disputes. Someone, presumably an Indian citizen, wrote in that OSM's boundary with Pakistan and China is incorrect – not biased toward another country, but incorrect. Map what's on the ground may sound great on paper, but OSM's stance is jarring for people whose society and educational system disagree with de facto viewpoint.



In fact, OSM does have India's claimed boundaries, as well as those of all the other countries. It just isn't the default. Here's a crude map showing where OSM has data on disputed boundaries. There are the obvious hotspots in Asia and Africa, but also some surprising ones like on Ireland. Thankfully nothing in Ohio.



Here's what the Kashmir dispute looks like up close. The default boundaries are in light purple, while other claim lines happen to be highlighted in blue on this particular map.



Whether or not OSM follows its on-the-ground rule, it isn't long before people notice, and not always as calmly as that Stack Overflow post.

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## Information for officials and diplomats of countries and entities with disputed territories

(Approved September 2013)

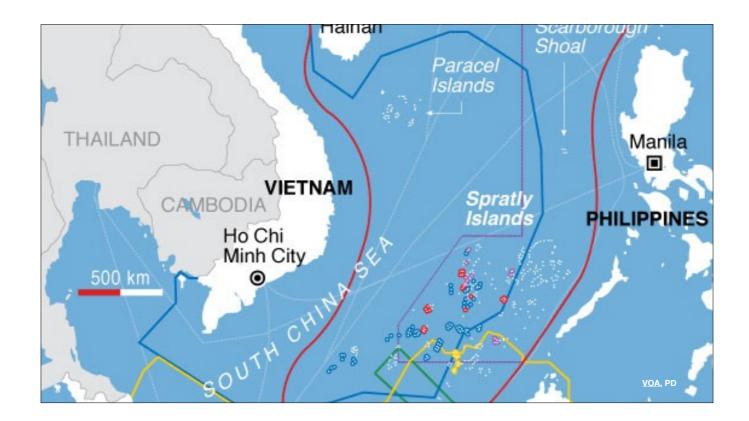
The features displayed on maps often need to be set out in a specific way to meet legal or cultural requirements in particular jurisdictions. Such requirements may conflict with requirements in other jurisdictions.

The OpenStreetMap Foundation identifies these features to be the main ones of concern:

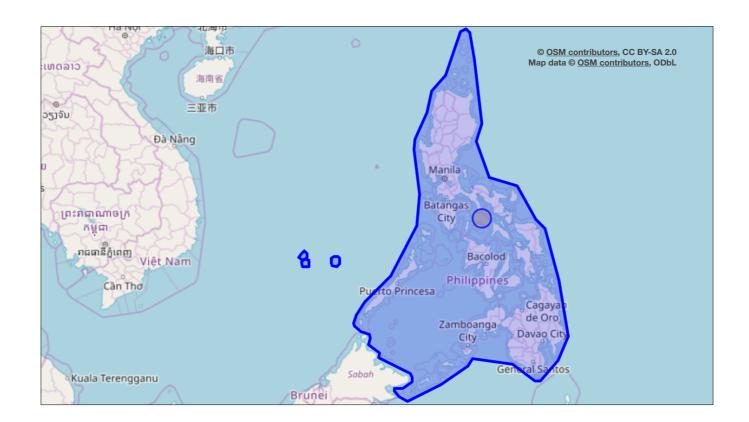
- Names
- Borders and boundaries
- Descriptions

If you are representing a jurisdiction, such as by being a member of a government organisation, this document outlines the position of OpenStreetMap and what you can do to meet your concerns. You may also be interested as a concerned citizen of your country or as a member of an ethnic or cultural group.

In fact, the OSM Foundation has published this document for mappers to distribute to government entities when they come complaining about OSM's treatment of disputed borders.



This is a map of the South China Sea found on Wikipedia, with a tangle of claim lines from various countries highlighted.



This is what OSM considers to be the Philippines.



And the People's Republic of China.



And Vietnam. Notice something? Some of the same islands are in two or three countries at the same time. The South China Sea has been so contentious that this is what OSM has settled on. You can't see it here, but there's a city labeled Sansha in Chinese characters if you zoom in far enough, since the on-the-ground rule favors China's island-building projects. These islands are effectively protected, because the OSM Foundation's Data Working Group and others monitor the area for unilateral changes and revert them on sight.



In July, a blogger in Vietnam noticed that a country selector somewhere on Facebook's website highlighted the contested islands when selecting China and also noticed a label for Sansha. The discovery quickly went viral and attracted the attention of Vietnam's Internet regulators and the prime minister, who demanded a retraction and apology from Facebook. Facebook is Vietnam's largest social network, and Vietnam is one of Facebook's largest markets. Facebook quickly apologized and announced that the "technical glitch" had been resolved. They also identified OpenStreetMap as the data source for the boundaries. Based on what I showed you earlier, it's possible that the fix entailed adding logic for disputed boundaries and non-default names.



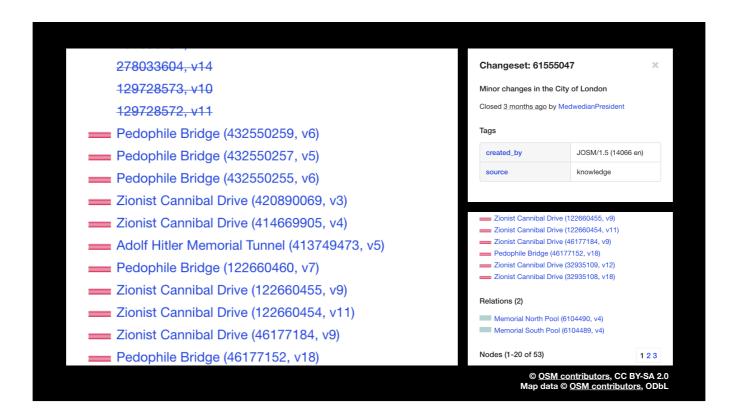
So all's well that ends well, right? Maybe not. Consider the chilling effect this nationwide furor could have on the small community of OSM contributors in Vietnam. Even if all you contribute to OSM are houses and roads in your hometown, it might not look so good that you're associated with a project that seemingly questions Vietnam's claim to the islands. Fortunately, OSM's stats don't yet show a drop in contributions in Vietnam since the Facebook incident, and so far I haven't heard of any case where OSM has proved problematic for a contributor in Vietnam. But there have been stories of prominent mappers in India and the Philippines getting cold-called by government agencies to explain OSM's boundaries. That's one thing we Americans don't have to worry about when mapping disputed state boundaries.



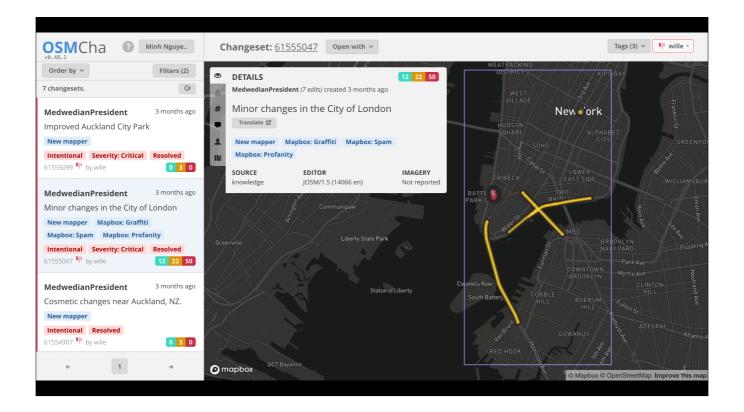
I'm going to switch gears and talk about something a bit topical and related to disputes: vandalism. Just as the OSM Foundation's Data Working Group will revert edits to the South China Sea that don't comport with the on-the-ground rule, they also play a leading role in reverting vandalism.



Here's New York City. Unfortunately, I didn't have the foresight to take a screenshot when it was vandalized back in August, so you'll have to use your imagination.



In August, a user by the name "MedwedianPresident" renamed New York City to "Jewtropolis". They also renamed roads to offensive names such as "Adolf Hitler Memorial Tunnel" and "Pedophile Bridge". The Chrysler Tower became "Inside Job".



This is a story of the system working – sort of. This is a visualization of the changes in OSMCha, a tool the OSM community uses for countervandalism. Within two hours, the changes had been flagged as bad and reverted by the Data Working Group.

#### Help - Sneaky Vandalism! Reported at OTRS Ticket: 2018081110004267 (and a second one as well). On Empire State Building, the map clearly shows the words Tracked in Phabricator "Jewtropolis" over Manhattan and the phrase "INSIDE JOB" over lower Manhattan. Where does this data exist? I looked at Task T201772 RESOLVED https://maps.wikimedia.org/ & and zoomed in to NY - and there it is. foundation:Maps Terms of Use says if you find an error then go to https://www.openstreetmap.org & to fix it - but it not there to be fixed! I've asked at ANI, but no joy there. Ronhjones (Talk) 11 August 2018 Chrysler Building has the same problem. Tornado chaser (talk) 11 August 2018 2:08 PM Note just add | mapframe = no to the infobox to disable this while the third party issues are being looked at. - xaosflux Talk 11 August 2018 2:19 PM Noting that Template:Infobox building was only recently updated to automatically show these kind of maps. Ping Evad37 since he might have more of an idea where exactly the data is stored, having created the modules and templates behind these maps.. Galobtter (pingó mió) 11 August 2018 2:29 PM It's also in 2 World Trade Center and 2 Broadway and possibly others. I found them in the category Office buildings in Manhattan, I didn't check all of them. -kyykaarm (talk) 11 August 2018 2:53 PM JW Marriott Essex House - reported at OTRS Ronhjones (Talk) 11 August 2018 3:15 PM It doesn't get any better if you zoom right into the World Trade Center (2001-present). From what I can tell, some large vandalism was reverted on openstreetmap in the last day or so.[4] Perhaps there's a caching issue? Drawing live content from a user-generated site, I don't know... Adolf Hitler Boulevard and Donald Trump Avenue anyone? -- zzuuzz (talk) 11 August 2018 2:55 PM Good grief, I was walking near Fuck Road & last week ..... I'm not sure how WM Maps syncs with OpenStreetMap, but somebody needs to tell the WMF tech team to run a resync ASAP. I've taken data off OpenStreetMap before, you basically have database dumps of planet.osm 🗗 released weekly that you can grab and extract.Ritchie333 (talk) (cont) 11 August 2018 3:08 PM Since no one seems to have an idea of when this could be fixed on the third-party end, I've just implemented the hackiest hack to disable maps for the vaque manhatten area. Feel free to revert if this problem is fixed/the hack causes problems/if it is a terrible idea. Galobtter (pingó mió) 11 August 2018 3:38 PM • I've disabled mapframe from Template:Infobox building. @Evad37: please review. — xaosflux Talk 11 August 2018 3:39 PM Xaosflux I realized now that you may have meant to disable mapframe until we've figured out why this vandalism occured/how to deal with this vandalism on a permanent basis, and not just for fixing this singular issue - if so, apologies for my revert of your edit on the basis of me hackily fixing the issue by disabling mapframe for the manhatten area Galobtter (pingó mió) 11 August 2018 3:50 PM And seeing Template\_talk:Infobox\_building#Mapframe\_code\_disabled I see that is the case... Galobtter (pingó mió) 11 August 2018 3:54 PM @Galobtter: assuming the immediate problem is fixed I'm fine. There may need to be wider discussion regarding including third party content in our articles © Wikipedia contributors, especially if that content is not up to our editorial standards such as displaying hard-to-fix vandalism. — xaosflux Talk 11 August 2018 5:07 PM CC BY-SA 3.0 Yeah, this may be another wikidata-esque thing, where the benefits (nice maps) has to be weighed against vandalism concerns. Per Ronhjones

But whether by accident or design, that wasn't the end of the story. The vandalism occurred shortly before midnight UTC, and it was reverted shortly after midnight UTC. In OSM's decentralized ecosystem, the practices of data consumers vary, but many such as Wikimedia Maps choose to pull updates from OSM at midnight UTC. So within a day, Wikipedians were complaining that offensive vandalism somehow seeped into the New York City article. The exact same vandalism got into my employer Mapbox's maps the exact same way a few weeks later, leading to a day of viral screenshots on Twitter.

### Countervandalism mechanisms

- Content protection
- Edit filters
- Ban on anonymous edits ✓
- User blocks √
- CheckUser

There was a choice quote in that Wikipedia discussion: "The folks over at OpenStreetMap don't appear very good at dealing with vandalism." Well, yes and no. The OSM community does revert a lot of bad edits, and data consumers block still more. But the core OSM software doesn't have as many built-in countervandalism measures as MediaWiki does.

There's no equivalent to article protection, in part because the data model is so intertwined. All the data coexists in the same database, not a separate database for each city or a separate layer for each type of data. If somehow we protected the New York City label's name, someone could easily add a "Jewtropolis" label right next to it and give it a higher population, crowding out New York City.

Some data consumers have something akin to abuse filters, but because they aren't part of the main website, a filter can't prevent the edit or block the user.

OSM has banned anonymous edits for about a decade, but that exacerbates another problem. In MediaWiki, anonymous editing is almost like a honeypot for bad edits, and it's easy to spot when someone is trying to evade a block. Eventually a vandal learns to hide behind a user account, and that's where CheckUsers come in. But in OSM, everyone has a user account. While users can be blocked, IP addresses don't get blocked, so a vandal can employ sockpuppets with impunity.

## Structural challenges

- Privacy concerns about looking up IP addresses
- No central place for coordination
- Data Working Group data only, not user behavior
- No equivalent to emergency@wikimedia.org
- · Little distinction between casual and persistent vandalism

The lack of IP blocking is one of the structural challenges facing OSM as it fights abuse: since the project is based in the EU, there is a strong hesitation to look up users' IP addresses in abuse investigations. The OSM site isn't a central clearinghouse for countervandalism efforts, which are spread among a number of tools and communication channels.

The OSMF has a Data Working Group that's central to countervandalism – they even use OTRS to track things that need reverting. But their mandate is essentially to protect the data; they aren't really about policing user behavior. If you think about the kinds of abuse that occur on Wikipedia, it isn't all vandalism: there's also a lot of bad behavior directed at other users, even threats, often stemming from content disputes. For these situations, as well as the government cold-calls I mentioned earlier, the Wikimedia Foundation has an emergency hotline. There isn't anything like it in OSM, so when disputes go awry, there isn't an obvious place to turn to.

Finally, I should note that the challenges I'm bringing up here don't usually come up in OSM discussions regarding countervandalism. In general, the community still doesn't distinguish between casual and persistent abuse as Wikipedia does. So even though the "Jewtropolis" vandal had used advanced editing software and created numerous sockpuppet accounts, most of the proposals in response to the incident were geared towards keeping casual vandals from doodling on the map. Those measures may be necessary, but they aren't particularly relevant. They also won't do anything to keep geographic disputes from getting out of hand, because those participants are well-versed in OSM.



I don't want to end on a sour note. The reason I enumerated all these challenges is that OSM is an open community – as Wikipedians, you have a unique perspective and plenty of experience to offer. First, you should get involved editing OSM because it complements the hard work you do on Wikipedia, Wikidata, and Commons. But once you get the hang of that, you should also help shape the conversation around disputes and vandalism.

## Thank you

- https://wiki.openstreetmap.org/wiki/Disputes
- https://wiki.openstreetmap.org/wiki/Ohio\_River
- [[<u>User:mxn</u>]]
- OpenStreetMap user "Minh Nguyen"
- @1ec5
- mxn@1ec5.org

Thank you! For more information about disputes in OSM or that crazy Ohio River boundary situation, please visit the OSM Wiki. You can also contact me if you have any questions or want to hear more stories along these lines.