Section 5 Progress of toponymic databases

Chapter 12 **Volunteered Geographic Information (VGI)**

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As methods of accessing geospatial information change and public interaction with such data becomes more dynamic, national mapping agencies and place-name standardization organizations are looking to take advantage of the willingness of the local population to provide information on location and associated attributes.

"The reduction in barriers to entry, the growth of Web and mobile mapping and the enthusiasm for crowd-sourced geospatial data have massively increased the role of the private sector and the volunteer community over the last decade. The fact that Google and Bing Maps are global brands highlights that it is the private sector that has made digital mapping accessible to the masses. Alongside the massive explosion in the use of geospatial information, 'Volunteered Geographic Information (VGI)' groups such as 'OpenStreetMap (OSM)' have gone some way towards popularising, albeit within a relatively niche community, the collection of geospatial data" [1].

For the utilization of crowd-sourced geospatial data, including geographical names, there is no single established approach [2]. The following information in this section is limited to the use of VGI for the publication and dissemination of geographical names

data and more specifically, the use of one VGI community, the OpenStreetMap (OSM) community.

OSM data is subject to copyright and database rights, and is available under a license called Open Database License (ODbL). In a nutshell, ODbL is "share-alike license" which says that if one publishes works based on the OSM data, it must be attributed to OSM, and if the OSM data is enhanced with one's own data, the enhancements must be shared with the community. Organizations have the choice of doing this by making available a derived database, or at least by publishing the method (code) used to make it, or both. The two key concepts for legal purposes are 'produced works' (published works that use OSM in their production) and 'derivative databases' (data sets which include data which is derived from, based or dependent on OSM's data in any way). How the license applies to the use case depends largely on the purpose foreseen for the data. In all cases, the usage of OSM data is free of charge, and organizations are free to charge others for any enhancement work and/or set own licensing conditions, but any derivative database from OSM must be available, for free, to anyone who requests it. [3].

Often OSM is used to publish a map which shows data collected by others in a geographical context. It makes no difference whether this is on a web map, in a printed publication, as a graphic in a TV programme, or in any other media. Non-map examples include creating a spreadsheet or database that shows a public transport route along with information from timetables to illustrate arrival/departure times from certain places, or a mobile app to help users locate points of interest in the real world.

Related to the 12 January 2010 earthquake in Haiti, the OSM community created a map coverage of the worst hit cities of Port-au-Prince and Carrefour, and the neighbouring countryside thanks to the "Haiti earthquake response mapping project" [4]. Using the free data, OSM developers and others around the Web have created a set of earthquake map resources in addition to OSM's basic online map:
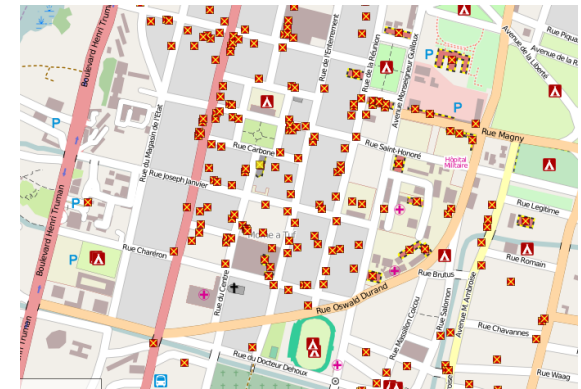

Figure 12-1 Example of an area zoomed on Port-au-Prince rendered on openstreetmap.nl The customized rendering set up by User:Ldp which shows damaged buildings and refugee camps mapped within OpenStreetMap using special GeoEye/DigitalGlobe imagery. See WikiProject Haiti#2010 Earthquake Response, http://wiki.openstreetmap.org/wiki/File:Haiti_earthquake_damage_map.png

The ODbL might be an obstacle or at least a reason to hesitate for an organization before using OSM for the publication and dissemination of its geographical names data or other geospatial data.

Generally, VGI and crowd-sourced data is likely to include valuable additional information in those

countries where well‑established geospatial sources are already available. The speed at which data can be gathered and compiled with VGI in times of crisis can be of importance in countries where no or few geospatial sources exist, although the accuracy and acceptability of the geographical names (for example) may be questionable in the long term. This VGI has at least the potential to provide a user's view of their geography. The supporting community states that more tailored public services and even more effectively targeted interventions by policy and decision‑makers could be possible. Very likely, VGI and crowd-sourced content will decrease cost, improve accuracy and increase availability of rich geospatial information. It is envisaged that progress will be made in future on bridging the gap between authoritative data and crowd-sourced data, moving towards true collaboration.

References

[1] UN-GGIM publication, 'Future trends in geospatial information management: the five to ten-year vision', chapter '4.1 Making mapping accessible to the masses', http://ggim.un.org/docs/Future-trends.pdf, last accessed 09/2016

[2] Online discussion forum of the Working Group on Toponymic Data Files and Gazetteers of UNGEGN, forum 1: 'Volunteered geographic information (VGI) / crowd-sourcing', https://wiki.gdi-de.org/display/wgtdfg/Forum+1+-+Volunteered+geographic+information+and+crowd-sourcing, last accessed 09/2016

[3] Introduction to OSM, http://wiki.openstreetmap.org/wiki/License/Use_Cases#Introduction, last accessed 09/2016

[4] Haiti earthquake response mapping project, http://wiki.openstreetmap.org/wiki/WikiProject_Haiti, last accessed 09/2016