Titolo della tesi
Crowdsourced mapping of disused buildings in Tor Sapienza district (Rome): opportunities, preliminary steps and problems

(specificare se sperimentale, progettuale o compilativa)
Sperimentale

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Riassunto

The national statistical agency of Canada, Statistics Canada (StatCan), launched a pilot crowdsourcing project, that offered a new way to produce and share open data in cooperation with citizens and private stakeholders. The pilot project goal was to collect quality crowdsourced data on buildings of Ottawa - Gatineau regions, especially georeferenced attributes as building footprint, address, name of business in the building; and points of interest.
The results obtained from the Canadian experience, have attracted particular interest for the open source platform developed by Statistics Canada: the Crowdsourced Open Data Acquisition Platform (CODAP) Web application. The aim of the present work is, indeed, to implement this platform in order to collect data on disused buildings and areas and, from this point of view, this open platform, that is accessible to everyone, can become a great opportunity for data collection on abandoned buildings, in collaboration with citizens. In

fact, the disused edifices represent, especially in Italy, a significant part of the building stock, anyway, updated and detailed information on this type of buildings are not always available. Moreover, inhabitants have better and more detailed knowledge of sites conditions. So, the present work inspired by the Statistics Canada project, has the general aim to collect this kind of data. In particular, the Italian project aim is to collect data on unused buildings and areas through a customized version of the CODAP app. For the launch of the Italian pilot project, the Tor Sapienza district was chosen by virtue of the urban planning characteristics. Data collected will be analysed and will contribute to an urban regeneration project, according to sustainability criteria.

Firstly, with the goal of developing the web-application, the CODAP repository was forked on GitHub. The files were analysed, and after modified and adapted to Italian project's purposes. Therefore, the area button was introduced, so as to collect information on land uses areas.

Moreover, for an improved usability by Italian users, the Italian language option was inserted. Furthermore, the map was setted up around the city of Rome.

Considering the multidisciplinary nature of the project, the city planning component was analysed. In order to involve the population in this preliminary phase, questionnaires and interviews were also administered to some Tor Sapienza local actors. The questionnaires were structured in particular to validate the choice of tags included in the application. Even if, the amount of the representative sample is not particularly high, the results obtained have however been assessed as sufficiently representative. In fact, the critical issues that emerged during the choice of the tag values were found in the processing phase of the questionnaires. Therefore, it was decided, during the translation phase for the Italian language option, to make appropriate changes in order not to affect the quality of the data collected.

The web-application is currently available on the GitHub page of the Geodesy and Geomatics Division of the "Sapienza" University, but since the present work represents a preliminary step, it has been not tested yet.

The experimentation phase will be carried out during the "Alternanza Scuola - Lavoro" project, in which a group of students from Tor Sapienza and other Roman districts will participate. The students will take care of the on-site mapping phase of the disused spaces. It is not excluded that from this phase problems, regarding the reactivity and functioning of CODAP, will emerge. Moreover, depending on the use of the web-application, new features can be introduced, or more tags based on project needs.

In the end, if the results will be positive, it will be possible to extend the mapping with CODAP also to other Roman neighbourhoods. The application could be a valuable tool to analyse and monitor, in real time, the dynamics of territorial development that characterize the Roman territory.