Visualizing Crowdsourced Urban Landscapes.
The impact of social networking in participatory practices

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This work will deepen the concept of visualization of urban landscape as related to use of collective forms of social media: urban space is not intended as a simple summation of objects, but as a complex interaction between places, people and images / representations of these spaces that citizens create, transform and share.

“Visible changes by no means tell the whole story of the underlying development tendencies. Beneath the surface of expansion of the built environment exist an intensive network of virtual exchange of knowledge, data and information.” Gabi (2007). In this way the visualization process is not only a way to define consolidated imaginary but also a social practice of the creation of urban space, addressing questions related to visualization means also discuss the relationship between space and perception: mental models are possible illustration for the process of spatial perception, they are extremely useful for understanding similarities and differences between real places and the social perceptions.

“The importance of mental images is due to their function as a filter in the process of perception they proceed and result from the processing of sensations. They give orientation, steer attention and help to interpret environment” (Healey 2007). Many examples of direct participation of populations in urban policies show that great attention should be paid to:

- use powerful and shared images to represent the transformation of an urban environment;
- not underestimate the quantity and quality of social interactions that influence the perception of space;
- take into account a broader social need of new representations of the urban landscape;
- use constructively the tendency of citizens to share knowledge, information and opinions about their urban landscapes through multiple channels, direct and indirect.

A major challenge to study issues related to the stratification of local knowledge is certainly on the role to be attributed to scientific knowledge in relation to diffuse, not systematized social form of place-based knowledge.

“Just as the residents of a particular place develop an experientially acquired ‘local knowledge’ of specific conditions, so expert groups have their own local knowledge. The knowledge production becomes a social process of making meanings, shaping by the situation, trajectories, activities and values of particular social groupings.” (Healey 2007)

The amount of tools and opportunities through which people produce flexible forms of local knowledge has grown dramatically in recent years: informal groups of citizens are increasingly present in the processes of city planning (including in relation to laws that expressly require the ‘direct engagement of inhabitants) but at the same time, it is
possible to detect a greater number of individual people, not organized, who use very often indirect tool of place-based participation. Through the channels carried by the new ICT and the web 2.0 social networking (blogs, micro blogs, Twitter, Facebook, mobile geo referenced application, etc...) are shared every day hundreds of thousands of local information of different nature: it is a mass of raw data which should be observed and analyzed carefully. If, on the one hand, it is not always easy to involve citizens in the processes of active and direct participation, on the other is no longer possible to ignore the various forms of interaction that can generate shared representations of an urban landscape. Using the most common forms of microblogging citizens tend to collect local information that can not generate a broad and analytical vision: through Twitter, Facebook, or one of many tools for mapping the territory is much easier to exchange opinions or judgments about a single place that a series of useful overview. Despite or perhaps, because of this fragmented proliferation of information generated by the local inhabitants we must take note of the proliferation and the growing social demand for images, visualizations, representations able to:
- facilitate coagulation of single action in organized forms of shared development of the urban landscape;
- reduce the levels of abstraction of description of the changes and what-if scenarios;
- allow the generation and exchange of vivid images promoting the possibility of emphasizing the positives and negatives of a places.

Translating the exchange of information and ideas that people generated through the Web 2.0 also means dealing with new and unexpected aspects of shared local-based and relational knowledge. It is therefore appropriate to ask what is the proper way to find and organize raw information and, most importantly, how to manage the relationship between visual-translation, made by the experts, and restitution and re-elaboration of the citizens. The drawing is, in these terms, a very powerful tool for condensing forms of collective knowledge through the direct intervention of ‘expert knowledge’.

The use of drawing and mapping practices of direct participation is not new: more experimental when it comes to giving visual form to the chaotic and unorganized information.

“Drawing, in such experiential knowledge not only helps to improve the understanding that inform policy. It may also help to make the arguments of strategy-makers more robust, through resonances between what the expert says and the experiential knowledge of those with a stake in an urban area.” (Healey 2007)

In this context, the role of expert knowledge in the analysis and definition of the social perception of the urban landscape is changing rapidly and radically. These recent developments of the Web force the technicians to rely on new skills: from the cultural mediation of landscape values to the ad hoc interpretation of the new geographical information. Furthermore, local and non-technical knowledge starts to play an increasingly important role in expanding the scope of the definitions of the urban landscapes.

In the dense urban area of Milan metropolitan region (an urban archipelago that has been effectively called ‘City of Cities’) there are various cases of use of Web 2.0 tools (Figure 1) for organized participation of citizens in the dynamic transformation of urban space. Mostly it is a response to requests from the recent regional planning law (L.R. 12/2005) on the issues of participation: planners are beginning to use blogs, geoblog and microblogging platforms (particularly Facebook) to stimulate the public on specific evaluation of the territory. The public meetings for evaluation of the impacts generated by planning alternate indirect interaction via web: the inhabitants can thus choose how a trace of their views on critical issues and positivity of an urban landscape (Figure 2). In other cases (as in the first urban eco-museum in Lombardia: the Ecomuseo Urbano Metropolitano Milano Nord-EUMM) participatory mapping techniques allow a
neighborhood of the metropolis to collect local memories and preserve their cultural heritages. The results may be building a map of the community (a king of urban parish map), or using the web as a tool to incrementally open and continue gathering information on a local map that, theoretically, infinitely enriched content generated by citizens. Even in these cases, the theme of the visualization plays a crucial role: citizens themselves require visual tools, maps, diagrams that shows the main issues discussed and promotes a more direct exchange with the public administration. Much more complex and interesting may be the theme of visualization of self-organized forms of participation via the web, as, for example, is the case of Twitter: the growth of self-organized daily tweets around urban themes is exponential and diversified. A typical example is the use, by hundreds of citizens of Milan, of the hastag “#giralo” (represented by #; used to indicate a common grouping of tweets; for example, #city might represent tweets related to city themes) to share geo-referenced information on local traffic. The growth and self-organization of the use of Twitter, which is facilitated by the extreme rapidity of tool and the opportunity to use via mobile, is a great potential to collect and analyze information on the use of local urban landscapes, on new forms of citizenship, new images and and new unconsolidated identities. Inside of a slow transition to forms of urban landscapes knowledge that takes care of relational frameworks and and qualitative analysis of networks of relationships between spaces and subjects visual translation methods are increasingly important as open to strong innovations and adaptations. The contribution of the dynamics of participation goes far beyond the simplistic expectations of a democratic enlargement useful only to the stabilization of the consent: crowdsourcing (Figure 3) is becoming, very quickly, a working tool that people use to enhance and reinterpret the spaces of everyday life. Work on the interaction between urban structured forms of knowledge and collective unorganized knowledge means addressing a broad range of new issues:

- how to adapt our tools of analysis to fully understand an urban landscape that no longer made up of sums of objects, but by complex relations between subjects and spaces?
- how not to underestimate the creative use of new technology and its rapid adaptation to shared forms of participation?
- is it possible to use visualization to add cognitive and social benefit to informal processes of local knowledge generations (Figure 4) ?
- what are the best ways to combine traditional quantitative analytical method with the need to 'make visible' the new ways of perceiving and experiencing the urban landscape?
Figure 1. Front page of Mappa-Mi, a web-based participatory mapping project in north Milan by EUMM and DiAP / Politecnico di Milano

Figure 2. The visualization of a SWOT analysis of urban landscape in a neighborhood of Milan, carried out by EUMM and DiAP / Politecnico di Milano with the participation of citizens. The items displayed are: positive in green, negative ones in red and yellow the proposals.
Figure 3. The Milanese Urban Region drawn by the inhabitants through the largest on-line crowdsourcing tool: Openstreetmap

Figure 4. Infographics on the participatory evaluation of the critical aspects of an area undergoing transformation in the urban belt of Milan (Source: Arch. Pietro Speziale / Daniele Villa)
References


