

## The power of maps in bottom-up web 2.0 cartography

### Crowdsourcing and critical web mapping of vacancy and the impact on urban development

On a German-wide case study of a crowdsourcing platform the impact of the visualization of vacancies in web maps will be discussed. Therefore I will show that the urban arena is a contested space of different interests and that urban movements use the Internet to criticize urban circumstances. Further more I will demonstrate that web 2.0 crowdsourcing platforms offer opportunities for counter cultures to make visible their visions of city development and to reinforce political pressure. In summary, my article focuses on critical online mapping of crowdsourcing platforms and discusses strategies of urban collectives against vacancy.

Initiatives and collectives of social urban movements in metropolitan areas criticize real estate vacancies and raise questions about their potential and possible uses. For urban activist groups like the *Right to the City* movements (cf. Lefebvre, 1968; Harvey, 2003; 2008; 2012; Merrifield, 2011; Mitchell, 2003; Purcell, 2002; 2015; Mayer, 2011; 2014; Holm, 2009; 2011; 2014; Holm & Gebhardt, 2011; Gebhardt & Holm, 2011) in Germany and elsewhere, vacancies and unused spaces besides rising rents are specific urban problems and important urban spatial aspects of inequality. By their activities such urban movements aim to influence social and cultural life, urban regeneration and urban policies on the spot. Traditionally they do so by articulating their collective views and interests, by occupying urban space, by protesting in the streets and demonstrating for the use of vacancies or by more active practices like the squatting of empty buildings. In Germany as throughout Europe such urban movements are much more 'in fashion' than some years ago. Mayer (2011, 53) regards the *Right to the City* constellations as "a new phase in the development of urban social movements in which new and broad coalitions throughout the city seem to have the potential to unify a variety of urban policy demands and thus they are a challenge to neoliberal planners, politicians and urban developers". There is growing upset and civil unrest in the streets of cities such as Amsterdam, Copenhagen, Istanbul, Madrid and Barcelona, Rome, London or Stuttgart, Frankfurt, Hamburg and Berlin (cf. Uysal, 2012; Morawski 2014; Kuhn 2012; 2014; Cattaneo & Martínez 2014; van der Steen, Katzeff & van Hoogenhuijze 2014; Holm 2014, Helten 2015; Dohnke 2015; Heeg 2015).

But, as Georgiou (2013, 142) suggests, that for urban struggles "the visibility offered by the physical space of the city is no longer enough", this article places a focus on critical collective online mapping and on the new possibilities in web 2.0.

Streich (2014, 103-119) and Petrin (2012a: 10-13; 2012b) state, that online crowdsourcing in the field of urban development can contribute to solve urban problems. In my analysis I emphasize that these described technologies will raise new possibilities of participative urban planning as they also reveal the lines of urban conflict between social actors in the city. I state that those web maps are the result of strategic considerations to influence, act against or prevent certain social urban developments or economic and political inequalities. Thus, web maps provide and push forward alternative perspectives on urban space and they have the ability to undermine power structures of urban policy and administration. They shape and achieve social urban change. Such bottom-up cartographic practices are acts of appropriation and retention of power or as Harvey (2012, 5) summarizes: "To claim the right to the city (...) is to claim some kind of shaping power over the processes of urbanization, over the ways in which our cities are made and remade". By web 2.0 mapping practices of vacancy, the mapping crowd

is able to take possession of the external and internal power of maps or as Crampton (2009, 96) puts it: “open-source tools can be used by the traditionally disempowered for counter-knowledge and counter-mapping” (cf. Harley 1988; 1989; Crampton 2001; 2009; 2010; Crampton & Krygier, 2006; Dodge, Kitchin & Perkins, 2009; Kitchin & Dodge, 2007). These processes are accompanied by a new meaning and recapture of the map’s power. Accordingly by producing, articulating and deploying the perspective of web 2.0 vacancy maps, urban actors bring up critical contents or ‘realities’ in order to confront political leaders with their view on urban space.

As a result, online platforms and web 2.0 mapping technologies should not be considered as ‘simple’ devices for visualizing topics on urban space, they have something to say. They can be a (critical) tool serving as an instrument for collectives and movements to strategically make urban issues a subject of discussion. Urban movements and online actors are powerful, they have to be regarded as political entities as they create new urban realities and also designate specific geographies. In this context, I investigate in which effects the critical online mapping of vacancies can have and for what reasons urban collectives use crowdsourcing platforms. How can web 2.0 and geoweb change the appropriation of urban space by means of voluntary collective critical online mapping of vacancies? It will be observed in which way new technological services of web 2.0 and geoweb crowdsourcing platforms are interconnected with the city.

To give answers to these questions I observed the local, regional and German-wide movement of the web mapping platform *Leerstandsmelder.de* (engl.: vacancy detector; [www.Leerstandsmelder.de](http://www.Leerstandsmelder.de)). Therefore I did problem-orientated in-depth interviews with several urban collectives of the cities of Frankfurt am Main, Kaiserslautern, Stuttgart, Hamburg, Berlin and Mainz, which will serve as case studies. All of them are actively involved in urban affairs and of cause in the mentioned web mapping project of vacancies.

As a way to emphasize the broader applicability of my analysis, I will provide a brief excursion through critical online mapping projects throughout the world. On the topic of squats there can be mentioned *Berlin Besetzt* (engl.: Occupied Berlin; <http://berlin-besetzt.de/>) or the *London Squats Archive* (<http://londonsquatsarchive.org/>). Another ‘movement’ can be found in relation to Airbnb, like *Airbnb City Maps* (<http://tomslee.net/airbnb-data>) or *Inside Airbnb* (<http://insideairbnb.com/>). Both examples are interactive, illustrated maps and crowdsourcing platforms that include detailed information and data. With the help of maps and digital archives actors raise the questions of how cities are being used. With these maps they question to whom the city belongs to and if we want to live in cities for people or for profit (cf. Brenner, Marcuse & Mayer, 2012)?

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