Emotional Mapping in Local Neighbourhood Planning: Case Study of Příbram, Czech Republic

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ABSTRACT

City planning, decision-making and participation in local administration can be sometimes elitist, closed to the public and non-participatory processes. Citizens are frequently a neglected part of these activities and are usually only involved and considered prior to elections. Yet citizens have a relevant role in the processes of town planning and administration. This paper describes the implementation of a web-based crowdsourcing tool for the collection and visualisation of emotion-based and subjective information on maps. The tool was used in a case study of neighbourhood development consultation in the city of Příbram, the Czech Republic. Visual, textual and statistical analyses showed a similar spatial distribution of some topics within the Křižáky neighbourhood and provide results, combining qualitative and quantitative approaches in the process of e-participation in urban e-planning. The results presented in this paper allow replication of the research methodology in other areas as well as its implementation.

KEYWORDS
Czech Republic, Neocartography, Participatory Mapping, Příbram, Qualitative GIS

INTRODUCTION

In the Czech Republic, as in other Central and Eastern European countries, decision-making in relation to city planning and local government has historically been elitist, closed to the public and non-participatory (Galdós, 2010). Citizens have often been a neglected part of the processes involved and are only considered prior to elections (Galdós, 2010). Distrust of politicians has increased as many corruption scandals have occurred. Furthermore, membership of political parties has never reached the levels of their western counterparts. Therefore, political scientists are discussing political de-alignment and political demobilization (Howard, 2003). The neglect of citizens as participants is slowly changing as local political representatives start to understand that citizens have a relevant role in the processes of town planning and administration (Čermák & Vobecká, 2011). There has been limited research in the region of Central Europe concerning the use of subjective and emotional maps as part of the processes of local planning, and almost no practical implementation of such approaches in local government administration. Nevertheless, some examples (Jankowski, Czepkiewicz, Młodkowski et al., 2015; Pánek, Pászto, & Marek, 2017) of citizens acting as an advisory body in the e-planning process have been observed.

Reflecting on the historical context of the planning process in the Czech Republic, the authors support the idea that new participatory institutions could help regain people’s trust in democratic government. A set of innovative instruments such as participatory budgeting (Bhatnagar, Rathore, Moreno Torres, & Kanungo, 2003; Cabannes, 2004; Shah, 2007; Sintomer, Herzberg, & Röcke,
2008), emotional maps (Pánek et al., 2017), participatory urban planning (Kahila & Kyttä, 2009; Kahila-Tani, Broberg, Kyttä et al., 2015), open data (Jäppinen, Toivonen, & Salonen, 2013) and other measures to enhance transparency, could all contribute to democratic renewal across European cities. If democratic renewal primarily occurs on a local government level, its effects may also reach the level of central government. Citizens in municipalities which employ participatory and deliberative methods of planning tend to have better civic skills and thus accept democratic principles and act accordingly (Geissel, 2012).

Participatory mapping can have an empowering effect because members of the community have the opportunity to think spatially about their environment and they can literally put their community on the map. The process of creating the data triggers feelings of belonging to the community and ownership of the process. Ownership empowerment starts and leads to sustainable development, driven and run by the community itself (Vlok & Pánek, 2012).

Nevertheless, as with almost every measure, it has to be applied with caution (Botes & Rensburg, 2000). Furthermore, Ghose and Elwood (2003) explored how local contextual factors can shape the PPGIS process in the United States. In their case study of Milwaukee, the authors found that the local political context is not the only factor in the successful application of PPGIS:

*PPGIS must be assessed as a complicated set of interrelated relationships among multiple government and non-governmental institutions, positioned at different levels, that play an interconnected role in shaping the processes of participation and PPGIS production.* (Ghose & Elwood, 2003, p. 17)

The idea of involving citizens in e-planning via participatory geospatial technologies is grounded in the theory of GeoParticipation, described as a collection of methods through which communities can be involved in the creation of maps that help them to be advocates for their environment and living space (Pánek et al., 2014; Pánek, 2015). GeoParticipation is often linked with the process of community mapping as “local mapping, produced collaboratively by local people and often incorporating alternative local knowledge” (Perkins, 2007, p. 127). Besides GeoParticipation, the concepts of Public Participation GIS (Obermeyer, 1998; Schmidt-Thome, Wallin, Laatikainen et al., 2014) as well as Volunteered Geographical Information (Goodchild, 2007; Tulloch, 2008) play an important role in the deployment of participatory map-based questionnaires related to (community) development.

The paper is divided into two sections; the first section discusses the terminology and methodology of emotional mapping, while the second section draws on the case-study from Příbram in the Czech Republic. The case study includes both a qualitative analysis of the results and a GIS-quantitative analysis and visualisation of the collected data. The results are critically discussed at the end of the paper, where suggestions for improvements in the methodology and a geostatistical analysis are presented. The tool presented in the case-study is open for further testing and in order to prove the (ir) relevance of emotional mapping in e-planning research the authors welcome any critical comments and examples of other such implementations.

**PERCEPTIONS, EMOTIONS AND MAPS**

Emotional mapping has the tools to support the ideas of Mody, Willis & Kerstein (2009) that emotions, spaces and places are interconnected and that every location can evoke an emotion, and places can be seen as attractive, boring, dangerous or scary, among other perceptions (Korpela, 2002). One of the first examples of emotional cartography comes from the book of essays titled Emotional Cartography: Technologies of the self (Nold, 2009, p. 3). The book was described as “… a collection of essays by artists, designers, psychogeographers, cultural researchers, futurologists and neuroscientists, brought together by Christian Nold to explore the political, social and cultural implications of using technology to visualise intimate biometric data and emotional experiences.” Surprisingly, the publication contains no essays by cartographers or city planners, although emotions have a strong influence on how the
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