The ItalianNeedMap: a Participatory Open Citizens-Oriented Tool for a Qualitative Development Planning Process in Smart Territories.

Valentina Volpi[1], Antonio Opromolla[1], Carlo Maria Medaglia[2], Andrea Ingrosso[3], Mauro Palatucci[1]

[1] ISIA Roma Design, Piazza della Maddalena 53,
00196 Rome, Italy
[2] DIAG, Sapienza Università di Roma, Piazzale Aldo Moro 5,
00185 Rome, Italy
[3] CORIS, Sapienza Università di Roma, Via Salaria 113,
00198 Rome, Italy

Abstract. The ItalianNeedMap is a design proposal for the realization of a dynamic map as a tool to tellingly monitoring the citizens needs on Smart Territories. It tries to put together three cardinal principles: the centrality of the citizens in the decision-making process; the meeting of the needs of the citizens as an element for the realization of Smart Territories; and the use of the map as a analytical and investigation tool.

Keywords: People Centered Design, Smart Territories Monitoring, Decision-Making Processes, Citizens Need Map.

1 Extended Abstract

Smart Cities are by now far from be considered as cities ruled by a combination of ICT systems and agents. The smartness includes the ability to satisfy and adequately react to wants from these persons [1], and going further also to their needs. So we consider a people-centered approach [2] the right way to planning effective strategies even for territories growth. Moreover, citizens are the principal actors that public and private stakeholders have to engage in the service design on the territory, in a synergetic, active collaboration. So in the paper we give a little sample of scientific literature about the involvement of the citizens in the decision-making process. The citizens are involved in the community development through different approach which can be divided into top-down, bottom-up and peer-to-peer ones. We believe that the selection of the model depends on the type of problems to solve. Anyway we identify the lack of an open online tool that allows a continuative dialog between the PAs and the citizens, on a topic that matters at different levels to almost all, such as needs. The road map of a citizen-driven Smart Cities development has been draft by many European policies and projects. There are several models of citizens involvement based on different tools offered by the use of the ICT.

Referring to that basis, we focus on the role of web-based mapping [3, 4]. A citizen need map is a spatial representation of one or more needs perceived by people in a specific area. Thanks to this tool PAs are able to adequately visualize where such needs arise and, consequently, to plan the interventions that meet the requirements of the population. On the map we represent only collective needs, i.e. needs perceived by the user as member of a community. Personal needs are excluded. Moreover, in the paper, we point out how the Italian context is scarce in citizen need maps and relative production methodologies. Compared with maps produced as part of researches carried out by the municipalities and conducted by experts, we observed a constriction as much in purposes and examined subjects as in citizens participation and methodologies for need analysis. Lastly, the representation of the users needs on the map was a "static picture" of the existing situation.

We conclude the paper with the description of possible ItalianNeedMap features. We suggest a dynamic map, with real time update data entered directly by users and a usable interface. The citizens can express their common needs, which will produce an immediate output on the map. Moreover the need types will not be defined a priori, but they will be identified through the continuous comparison with users/citizens. The map is not intended to be a public consultation tool. It allows a continuous dialogue between citizens and the public administration. Different levels of citizens participation and engagement are expected from the map, since the users can express their needs with different levels of detail. On the other hand the PAs can use the map to inform the citizens of existent services that meet their expressed needs. In fact the difficulty in communicating the existing services to the community in the Italian context contributes to leave unsatisfied the collective needs [5]. Moreover from a chronological analysis of the subsequent maps, the PAs are able to identify how needs change over time and which services met the expressed needs. Finally, citizens are the first actors to be considered, at different levels of participation, in the process when decisions are made about the development of services in a territory. This lead to the evaluation of the usability of the tools they use, including map services [6]. Future work could likely focus on this issue.

References

1. Hollands R.G.: Will the real smart city please stand up?, City, 12 (3), pp. 303--320 (2008)
2. Human Smart Cities Manifesto, http://peripheria.eu/blog/human-smart-cities-manifesto
3. Kingston R.: Public Participation in Local Policy Decision-making: The Role of Web-based Mapping, The Cartographic Journal, 44 (2), pp. 138--144 (2007)
4. Daniel, S., Doran, M.-A.: geoSmartCity: geomatics contribution to the smart city. In Proceedings of the 14th Annual International Conference on Digital Government Research (dg.o '13), pp. 65--71. ACM (2013)
5. Castelli M., Comerio M., Cremaschi M.: Towards the Definition of Value-added Services for Citizens: a New Model for the Description of Public Administration Services, International Journal of Management & Information Technology, 4 (1), pp. 166--173 (2013)
6. Nivala A.-M., Sarjakoski L. T., Sarjakoski T.: Usability methods' familiarity among map application developers, International Journal of Human-Computer Studies, 65 (9), pp. 784--795 (2007)