

From Smart-Cities to Smart-Communities: How Can We Evaluate the Impacts of Innovation and Inclusive Processes in Urban Context?

Francesca De Filippi, Department Architecture and Design, Polytechnic University of Turin, Turin, Italy

Cristina Coscia, Department Architecture and Design, Polytechnic University of Turin, Turin, Italy

Roberta Guido, Department Architecture, Design and Urban Planning, University of Sassari, Sassari, Italy

ABSTRACT

Nowadays, through ICT supports and their applications, the concept of smart cities has evolved into smart communities, where the collaborative relationship between citizens and public administration generates multi-dimensional impacts: urban sites are living labs and agents of innovation and inclusion. As a first step, this article aims to critically review the state of the art of the assessment methods of these impacts through a set of synthetic indicators; the second step is to elaborate a specific framework to evaluate quality of life through a set of impact indicators for smart communities and inclusive urban processes. According to some referenced authors, cities and communities are smart if they perform well in six smart categories: smart economy; smart people; smart governance; smart mobility; smart environment; and smart living. Considering a recent experiment carried out in Turin (Italy), the authors propose a methodology, whose trial is ongoing, based on a hierarchical multiscale framework defining a set of smart community indicators.

KEYWORDS

Collaborative Platforms, Digital Citizen Engagement, e-Democracy, ICT, Impact Evaluation, Smart Cities, Smart Communities, Social Inclusion, Social Innovation

1. INTRODUCTION

1.1. Key-Notes on Smart Cities and Smart Communities

The concept of “smart cities” attracted notable attention in the context of urban development policies, coined to signify their turning towards technology, innovation and globalisation (Gibson et al., 1992). ICT and their application gained more and more importance for urban development, but the practical side is still under exploration and it need to be developed through initiatives, case studies and projects, which effectively foresee participation and interaction of the involved actors. The attention to participation and interaction with citizens is increasingly at the centre of the debate about Smart Cities, also because often ICT solutions have been proposed without seeing first needs and usability by citizens. It is therefore to be considering that technology is a tool not as an end (on the basis of defined targets) and that citizens and city needs must be the target (citizens involvement) (Jimenez, 2014). In addition, as technologies are never neutral, and it is dangerous to impose them on a pervasive basis without consultation. It is necessary for the Smart City to be deconstructed to avoid techno-deterministic conditions and to observe how relevant unplugging dimensions can be to social

DOI: 10.4018/IJEPR.2019040102

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innovation in a more realistic, grounded, and socially equal urban sphere (Calzada & Cobo, 2015). A Smart City should be considered as a city in which “investments in human and social capital and traditional and modern (ICT) communication infrastructure fuel sustainable economic growth (...)” (Caragliu et al., 2011). This framework suggests an evolution of the concept where the attention is more on inhabitants and their communities, also considering public authorities and decision makers. So that it is deepen the collaborative relationship between citizens and public administration and generates multi-dimensional impacts: urban sites are living labs and agents of innovation and inclusion.

In that meaning Smart Cities and Communities rely strongly on strategies and solutions enabled by ICTs which directly involve local governments, citizens, communities and technologies, and are being used increasingly as drivers of change in the redefinition of the relationship between the city and its citizens (Gagliardi et al., 2017). As a matter of fact, the expanded use of ICT tools and specifically map-based platforms in recent years has revealed their global potential in allowing for the visualization of interactive geo-data, increasing local awareness and fostering participation among citizens (Silva, 2010; Brail & Klosterman, 2001). Web platforms and applications developed for the residents of a neighbourhood or specific locality –such as the ‘My Neighborhood’ (www.my-n.eu/da) and the ‘Polly & Bob’ platforms (blog.pollyandbob.com/) – encourage people to get involved within their own neighbourhoods and inspire their family and friends to do the same. The data and functionality of existing City Information Apps (e.g. MyCityWay, Foursquare) are combined with tools that connect people locally. My Neighborhood also experiments with basic gamification techniques to stimulate community building. Discussions are enabled by blogs, discussion forums, event calendars, and so on. In this case, simple geo-web applications enable citizens to map people of interest and events. Map-based services for the management of public spaces have mostly been used to focus attention on problems or aspects that need to be changed in cities. Current online neighbourhood portals are therefore primarily directed towards strengthening community life with the help of online technologies, thus engaging citizens to communicate and discuss any issue of interest. A wide variety of digital platforms has incrementally demonstrated a realistic potential for co-production between government at various levels and citizens groups (Falco & Kleinhans, 2018).

With the launch of the Europe 2020 Strategy and the local implementation of the Digital Agenda, Public Administrations play a key role in creating the conditions to foster social innovation, becoming more and more “open, flexible and collaborative in their relations with citizens” and promoting the “e-Government to increase their efficiency and effectiveness and to constantly improve public services in a way that caters for the different needs of the user”. At a time of highly constrained public resources, ICT is seen as a tool that can help the public sector develop innovative ways of delivering its services to citizens while unleashing efficiencies and driving down costs. Therefore, in recent years the design and use of platforms, software and applications have increased, these often being seen as solutions to societal needs: they enable exchange, communication and create a community of citizens and other stakeholders who have shared interests and concerns. They are considered to be tools which can empower citizens, including marginalized groups, improve public services, while at the same time ensuring equal access to information and promoting democracy (European Commission, 2015). This generation of services has only indirectly involved local institutions since it has not allowed for interaction with the platform on an institutional level. For example, on apps such as Epart, ImproveMyCity and FixMyStreet problems are reported on a map in order to be addressed but are not directly managed by the local council. Another example is the Changify platform (www.changify.org), which focuses specifically on locals who wish to share things they love or express changes they would like to see in their neighbourhood (De Filippi, Coscia & Guido, 2017).

MiraMap, the object of the case study here described, aims at further increasing community engagement through both online and offline methods and promoting the co-production of services by means of social networking functionalities, encouraging citizens to report proposals and positive aspects of their neighbourhood (Kingston, 2007). The “hierarchical framework of MiraMap”, which will be illustrated in sections 3 and 4, aims to monitor and evaluate the effectiveness of processes related to these aspects.

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