Chapter 29

Smart Planning:
The Potential of Web 2.0 for Enhancing Collective Intelligence in Urban Planning

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ABSTRACT

This chapter discusses the ability of new technologies to support collective intelligence. The technology trend brought into the spotlight is Web 2.0 because it has a great potential to contribute to the refined understanding of planning issues. Such an application field can be called Collective Intelligence 2.0 with crowdsourcing as its characteristic process. This chapter discusses how such an intelligence and crowd-sourced knowledge can be utilized in smartening up urban planning. Crowdsourcing has been experimented in urban planning since the late 2000s, most notably in the forms of wikiplanning, participatory sensing, and co-creation. By combining theoretical insights and empirical evidence, this chapter concludes that Web 2.0 tools can be used to increase various forms of social and collective intelligence and, especially when the precondition of citizen-centered open planning culture is met, have undeniable potential to smarten up urban planning.

INTRODUCTION

In the last few decades we have witnessed a gradual shift from wired world to smart world, at least in rhetoric. The roots of such a turn can be traced back to the 1990s, when 'smart communities' came under discussion as the materialization of the application of information and communication technologies (ICTs) in urban life, manifested in smartness in knowledge processes, traffic systems, service delivery, and consumption (Caves & Walshok, 1999). However, the smart city discourse today differs in many ways from what it was some twenty years ago. It gained new impetus in the 2000s, a time when many academics active in e-government research broadened their views and changed the attribute from 'electronic' to 'smart' (Nam & Pardo, 2011a). This development was accompanied by a surge of city conceptions with direct or indirect associations with smartness in urban life (Komninos, 2002; Aurigi, 2005; Kasvio & Anttiroiko, 2005; Carrillo, 2006).

Smart city captures something essential about the new frontiers for planning, building, and maintaining urban communities. It can be seen as a new image of our urban future following the idea that the complexity of urban life has increased tremendously and that to meet such challenge a corresponding increase in smartness is called for, mainly through the sophisticated application of new technologies. Even if most of the social processes and systems can be smartened up using ICTs, smartness in its entirety goes beyond digitalization (Murgante & Borruso, 2013a, p. 630). Cases in point are planning, policy, and governance processes – i.e., ultimately centrifugal social endeavors within a complex, uncertain environment – in which true smartness cannot be built on information systems or artificial intelligence alone. This implies that smartness in such collective processes is rather 'soft', as expressed in the ideas of collective intelligence, social intelligence, and wisdom of crowds (Surowiecki, 2005; Goleman, 2006). In this chapter we direct our attention to assessing the chances of new technologies to support 'soft' smartness in urban planning.

Technology-wise, a trend associated with soft smartness is undoubtedly Web 2.0, a set of services with the potential to bring about collective intelligence, either as an aggregator of information or as a generator of a refined understanding of states of affairs derived from the wisdom of the crowd.

Taking these considerations together, the objective of this chapter is to describe how the use of Web 2.0 platforms, applications, and services builds collective intelligence, and how such intelligence and crowd-sourced knowledge can smarten up urban planning. The thematic field discussed in this chapter is illustrated in Figure 1.

The theoretical part of this chapter focuses on conceptual clarification and the construction of conceptual models, starting from a general discussion of smart city, continuing to smartness in urban planning, and the chances to use new technologies and Web 2.0 in particular in smartening up urban planning. The discussion therefore comprises several layers, starting from context and ending up at the core topic, that is, crowdsourcing 2.0 in urban planning (see Figure 1). The empirical section presents real-life examples cited to provide empirical evidence of emerging practices for generating collective intelligence

Figure 1. Thematic layers of crowdsourcing 2.0 in urban planning
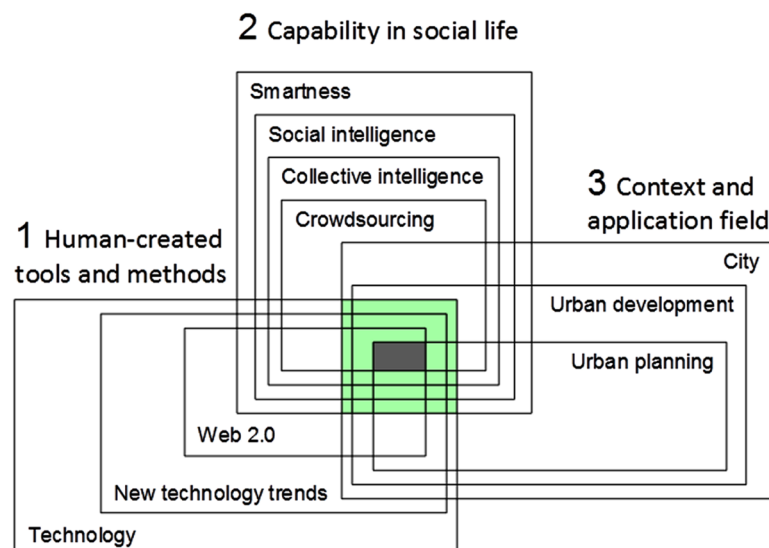
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