Chapter 39
Causal Modeling to Foster E-Participation in the Policy Decision-Making Life-Cycle

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ABSTRACT

Digital simulation techniques could contribute increasing citizen participation in urban policy design by transforming their opinions into valuable knowledge by means of evaluating certain decisions in a digital urban scenario that would facilitate the understanding of the impact of different choices not only in the urban scenario under study but also in different, hidden indicators (i.e. dynamics not considered by a citizen due to limited cognitive horizons). Furthermore, the trial and error experimental approach inherent in simulation models could act as an enabler of open deliberations between citizens to foster a mutual learning process of the complex urban dynamics. The aim of this chapter is to illustrate the benefits of causal modeling with respect to other commercialized approaches to develop simulation models that could fulfill the transparency and acceptability requirements to foster e-participation, taking into consideration the demands and skills of the multiple and heterogeneous users of urban policy models.

INTRODUCTION

Since Web 2.0, several forms of collaboration and technical solutions have emerged as online applications for public participation with the aim of encouraging citizens to discuss current issues related to their environment and to improve the process of public participation in general. An example can be seen in the integration of geo-graphic information systems (GISs) with public participatory tools, which has represented one of the latest innovations in this area. Despite several efforts providing better graphical user interface tools which can be used by non-experts without intense training, such as those based on Google Maps and Google Earth, Moody (2007) demonstrated that the use of GIS technology and other map-based applications to involve citizens

in participatory urban planning does not seem to empower them. Thus, a relevant question to enhance e-participation in urban planning still awaits a solution: how can we overcome present barriers and attract additional citizens to participate and contribute during the decision making process in urban planning?

When trying to involve citizens in different decision making processes, the effect of rational ignorance (Krek, A. 2005) has been observed, and according to rational choice theory, it states that ignorance about an issue is said to be rational when the cost of educating oneself about the issue sufficiently to make an informed decision can outweigh any potential benefit one could reasonably expect to gain from that decision, and so it would be irrational to waste time doing so.

Rational Ignorance is increased when citizens feel that they cannot really influence the final planning decisions due to opinion really lacks of a proper value to influence in the urban planning policy. This is a consequence of the alternatives in the decision making process, which are characterized by a complex process of interdependent relationship between controllable, observable and influence variables. For most citizens the personal benefit of getting involved in planning activities through an ICT platform is usually little while the cost of participation is rather high when they lack the solid knowledge to uphold their choices in a competitive context.

Among the different factors that make citizens become rationally ignorant, such as poor information dissemination and/or lack of understanding of the different dimensions of the planning problem, it is worthwhile to pay particular attention to the lack of understanding of a multi-minded social system in which conflicts, cooperation, competition and coalition emerge easily.

To reach a mutual understanding among neighbourhoods and different stakeholders (citizens, city officers, experts in the field, etc.), e-participation should be seen as the end result of a developmental approach instead of its beginning. The success of

e-participation it to foster a mutual understanding of the different choices trying to accept a trade-off in which an acceptable compromise between the different targets can be accepted through a proper understanding of the interdependent relationships between the different forces, interests and constraints that emerge between the human, financial and technical domains.

It is worthwhile to note, that most e-participation tools which rely solely on social networks are oriented mainly to the emotional and the cultural dimension of the choice process, while the rational dimension is weakened. The emotional and cultural dimension used to contribute to opinion exchange in informal and casual discussions while the rational dimension contributes with instrumental and extrinsic values, which is a requirement to be involved in an interactive process in a multi-minded socio-cultural system in which a mutual learning approach is sought. So, the use of ICT to share with others who live in the same social setting their worldview (i.e. mental model or image) is not enough to move towards a shared image of a community in which the individual images have been transformed through an interacting process till coincides with common understanding of the problem and the trade-off solution.

In order to drive the e-participation process through a mutual learning methodology in which new sets of urban alternatives and planning objectives could emerge, looking for more desirable possibilities for the future, new tools to empower citizens with a better knowledge about the planning decision process will be required.

A successful and motivating approach to enhance the rational dimension of citizens in the urban planning through e-participation is the use of online serious games (Alenka Poplin, 2012) to potentially bring playfulness and pleasure to the serious processes of urban planning decisions with public participation. One important aspect on which urban planning can utilise serious games is the use of a model to represent the urban scenario together with a simulation engine that allows the

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