

Co-Design for New Relations in an Open, Interactive City

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Abstract

Contemporary cities are complex systems whose administration is difficult and even more difficult it is designing their future in a participative way. Nevertheless, nowadays we can rely on specific skills to design new scenarios of social sustainability and well-being, and on appropriate information and communication technologies to involve a greater number of citizens. The aim of this paper is to discuss how these co-designs are changing the way people interact with each other and with the city they live in an open and interactive environment. Therefore, we present the PortoAlegre.cc project. It is an initiative our University is developing in collaboration with the Porto Alegre Municipality, considering that in Brazil the participation issue is clearly an unresolved emergency. The project is based on an online platform and it explores face-to-face moments of shared value co-creation.

KEYWORDS: Co-Design, Online Platforms, Scenarios, Participation, Web 2.0.

Introduction

The daily life in big urban centers is denoted by aspects such as the increase in population density, sustainable development and search for standards of living. These matters are challenges characterized by uncertainty towards the future of these complex systems (Güell, 2006; Luhman, 2010).

The construction of future scenarios based on cause and effect relations emerges as an instrument capable of decreasing the unpredictability of the future and supporting the strategic decision making (Schwarz, 1996; Van Der Heijden, 2009; Reyes, 2011).

Design can contribute to this process by providing knowledge and competences for the construction of scenarios that stimulate the development of collaborative projects for

sustainability and social welfare (Manzini, 2003; Manzini & Jégou, 2004). The goal of these scenarios is to promote interaction with the population along the co-design of the future of the cities. The use of this approach implies the opening of the political structures to a wide design network with the direct participation of the citizen. Apart from being another crucial challenge for our cities, participation promotes the transparency of the decision-making processes.

However, the citizenship engagement has to be promoted and achieved and it requires tools to perform the mediation process (Rizzo, 2009). To this end, the digital environment, from the web 2.0 (O'Reilly, 2005; Jenkins, 2006), enables the development of interactive platforms which promote contact among the actors involved.

The Brazilian context is particularly interesting to observe the design contribution in this dynamics, because here many social projects are fast growing with the direct involvement of designers (AEND, 2010). We studied some of these projects, focusing specifically on the collaborative ones, and we noticed that most of them are developed using online platforms. This way, the real interaction between the users of the public spaces does not stop within their use, but continues through the virtual interaction, enlarging their physical extension (Iacucci & Kuutti, 2002)

The aim of this paper is to discuss how these co-designs are changing the way people interact with each other and with the city they live in an open and interactive environment.

Hence we present an experience our University is developing in collaboration with the Porto Alegre Municipality which is the PortoAlegre.cc project. Through an online platform, the project collects all the urban instances citizens want to share, so as to promote collaborative initiatives. This way, it represents a sort of scenario that could become useful to plan and design the future of the city.

Opening complex systems interpretation

According to Güell (2006), cities are complex systems characterized by non-linear dynamics and great internal variety. Thus, there is not a way to understand the whole system from an individual analysis of one of the components. Moreover, it implies their capability of adapting and transforming in response to the changes that occurred around them. The systems transform themselves in a way that is not always predictable.

This way, we observe that cities are characterized by the uncertainty in relation to future events. In this context of complexity and uncertainty, the challenge is to find ways to reduce the risk towards the future. To this end, the use of scenarios built from plausible relations of cause and effect represent different future possibilities, supporting the decision making in uncertainty environments (Van Der Heijden, 2009).

In this direction, Schwarz (1996) stresses that unexpected changes happen and they demand fast decision making, so as scenarios construction has to consider their plausibility, but also promote surprising combinations. According to Reyes, "what can be predicted does not need scenarios, that is, for the prediction, the fact is given in its basis" (2011, p. 2, authors' translation). This way, scenarios are not only useful to forecast the future, but also to react to unexpected events in the future.

The strategic dimension of using scenarios becomes rather clear: offering a comprehensive vision that combines the most relevant elements of the actual situation, their predicted evolution and the principal uncertainties, they help the interpretation of the future and allow

a strategic conversation between all the actors involved in the decisional process (Van Der Heijden, 2009). As stated by Schwarz (1996), this conversation could be effectively opened to outsiders. The author highlights that scenario-based in-depth talks with external actors could aggregate original points of view and innovative thinking.

Manzini and Jégou (2004) corroborate that, to reconfigure their own activities, productive and social organizations have to operate in a systemic way, involving multiple actors who are internal and external to organizations. They called "Design Orienting Scenarios" (DOS) those scenarios that support decision making specifically during participative design experiences.

Besides serving as an instrument in the decision making, scenarios technique is very important to open to a large range of actors of a complex system, the strategic conversation about it and its future, i.e., to promote participation.

Following Luhman's thought (2010), we can assume the design process as an open system and predict a collaboration between the actors of its internal structures (e.g., the designers) and the external environment (e.g., the users or the citizens).

This way, we observe that the feedbacks originated from this interaction, have the possibility to modify the system according to the needs of the environment. By dealing with scenarios, we observe that this exchange shall be done in advance, considering probable changes even before they are necessary. This evidence highlights the need of open systems.

Co-design and online platforms

It becomes evident the importance of external actor's participation during scenario thinking, both in planning or design. It implies aspects such as co-creation, collaboration and interactivity, which constitute the basis for a co-design process.

As Rizzo (2009) highlights, the co-design process goes beyond the involvement of the final client, which traditionally happened by focus group, observations and interviews, characterized by the client's proactive collaboration through the whole creative process. In a co-design process, the "non-designer", using an expression by Rizzo, puts him or herself besides the designer and becomes the leading figure of development and research practices of new product-service systems (see also Sanders & Stappers, 2008).

In the co-design approach, Iacucci and Kuutti (2002) observe that scenarios elaborated together with potential users aim at testing ideas, collecting new suggestions and, above all, creating a realistic image of the future situation of use. In other words, designing with non-designers facilitates the projecting dimension of design.

As we analyze the positive aspects connected to co-design, we cannot but observe the fact that it is a relatively recent matter in the agenda of the productive and social organizational environment. Two main factors contributed to the participation of external actors to emerge as an interesting alternative of creation of value.

One of these factors is related to the transition that occurred from a productive module (which was focused on production and that saw the customer as a "passive" receiver of the produced goods) to a consumer model (ready to understand and satisfy the client's expectations, desires and needs).

From the moment the focus becomes the consumers, we need new methods and techniques to better understand their expectations and needs. Intending to create value for the client, co-design creates a direct relation going into the origins of these needs.

Another fundamental aspect in this co-design journey is related to the arrival of new means of digital communication. From what Jenkins (2009) defines as participative culture, consumers and producers are not seen in separate roles anymore, but interacting according to a new set of rules which contrasts with the oldest notions about the client's passivity. In this sense, the author observes that old consumers were predictable and socially isolated, unlike new consumers, who are described as migratory and socially connected.

After the emergence of web 2.0, the internet is not just a source of content to be passively absorbed by the receiver. As stated by Romani & Kuklinski (2007), this new network becomes an open platform whose construction is given by user collaboration in content generation, promoting an architecture of participation.

The authors note that the implementation of a new generation of tools which enable user participation in web 2.0 collaborative processes. Among these interactive tools we highlight the social networks developed to provide the onset of communities where it may be social interchanged. In written content, there is the use of tools that facilitate the development and sharing of new content. In the domain of electronic services, there is a number of applications able to offer customers value-added services.

Online platforms capable of inserting users in innovation processes and tools that facilitate the storage and the intelligent use of this information are introduced in the productive and social organizations. Also approaching new genders of cultural products, especially the new kinds of media, Rizzo (2009) highlights blogs and social networks as open platforms where this interaction between the organization and the external actors can occur. This way, they are set up as potential co-design online platforms.

The use of these platforms is fundamental for the existence of the user's creative collaboration. As Rizzo states, the organizations that decide to include non-designers in the design process shall substantially create a structured model, the online platforms in this case, promoting interaction and generating innovation.

This structure of collaboration over the internet has on the user the central point of its own maintenance. Through the architecture of participation provided by web 2.0, each time a user creates some content, or performs some sort of social interaction, the network grows and enriches. This way, analyzing the co-design process and participation from the online platforms of web 2.0, we observe that this entire context can be applied to scenario co-design. As O'Reilly (2005) highlights, the organizations which are able to use all the potentiality of the new tools of the web 2.0, creating platforms that learn with their users, will have a powerful competitive differential, given the wealth of the shared data.

This data can contribute to the construction of scenarios. In an environment marked by critical uncertainties related to the future, the information that comes directly from the final consumer can decrease the unpredictability also acting as a relevant support for decision making. Moreover, the external view can bring information that is totally different from the information the organization is used to catching. This is a fundamental point in relation to scenarios, especially because this different view that originates externally can lead to the breaking of organizational paradigms and the change of mental models. In this context, the sequence of this work heads for the observation of co-design online platforms applied to the creation of scenarios of social organizations. This approach will be completed through the analysis of a scenario co-design case applied to urban reality.

Online platforms and the urban complexity

As Güell (2006) stresses, many authors explore the relation between the complexity in science and cities, especially to mediate conflictive matters, such as the confrontation between ecology and economic development. Besides the notion that cities are complex systems marked by uncertainty, we shall observe the importance of the participation of various actors in co-design of future scenarios related to urban context.

As Güell highlights, the diversity present in urban communities is an important asset when it is well managed. For that reason, it is necessary to know the different actors who have influenced the urban development so we can include them in the definition processes of the future strategies. The author states that the strategic planning of the cities is a systematic process that involves creativity, besides being fundamentally participative. In the sense of building future scenarios of urban environment, there shall be collaboration from the local actors through out the whole process. In an integrated way, long term development strategies shall be created, allied to the formulation of courses of action and decision making, so the desired model can be reached.

Online platforms emerge in this context of participative construction of future scenarios of urban environment. They act as mediators of the contact between local actors (citizens, for instance) and the public system (the City Hall, for instance).

Therefore, Güell's proposal (2006) is put into practice related to the insertion of new technologies in the management of city planning. From online platforms, it is created a direct channel with the community, facilitating the process of data collection that will be important for the decision making. Besides that, the participation of local actors in this co-design process creates what the author defines as social capital, generating a discussion channel that reveals values and the true identity of the city.

According to Güell (2006), this open collaborative process through online platforms has the possibility of certifying more informative transparency for the decision making about the future of the cities.

Research Method

In order to foster a deeper comprehension about how we can innovate the way people interact with each other and with the city, using a co-design approach and web 2.0 tools, such as online platforms, we studied the case of PortoAlegre.cc project.

As presented in the next section, this project really fits to our purpose, because of its general goal, approach, methods and techniques.

The case is successively discussed by using the following criteria:

- » Complex systems: dealing with complex systems, a certain degree of risks and unpredictability;
- » Diverse actors: using different points of views on the same issue;
- » Listening to the user: altering or adapting the dynamics of the system from the understanding of the needs and desires of the environment;
- » Co-creation and co-design: designing with the user to create new shared values;
- » Web 2.0: open and online platforms that promote interaction;
- » Scenario construction: building scenarios as a strategy to deal with complex systems.

The PortoAlegre.cc case

Universidade do Vale do Rio dos Sinos (UNISINOS) is an institution situated in São Leopoldo, a city near Porto Alegre, in the south of Brazil. UNISINOS has recently opened a branch in Porto Alegre to host institutional activities and special courses.

In this process, UNISINOS developed together with a company called Lung an action called “Redencao.cc”, focused on the appreciation of Redenção Park, the largest in Porto Alegre. The extension “cc” present in the domain Redencao.cc refers to the use of Creative Commons (see www.creativecommons.org, accessed on February 10th, 2012). This action mobilized Porto Alegre citizens generating spontaneous media and stimulating the interest of many public and private agents.

From this experience, UNISINOS, Porto Alegre City Hall and Lung got together to create the PortoAlegre.cc project, that would bring impact to the scale of the city and not only to a specific sight, forming a Triple Helix, in which industry, university and government are articulated to reach a common goal (figure 1).

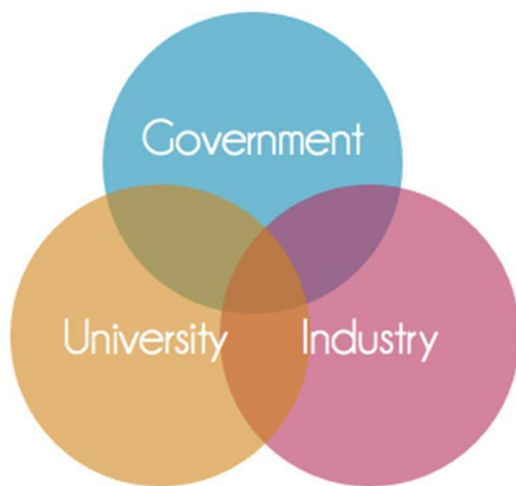


Figure 1 – The Triple Helix Model (Etzkowitz, 2008)

The main interface of PortoAlegre.cc is an online platform that implements the concept of “Wikicity”. The term refers to a digital platform that allows discussion about the history, reality and the future of specific territories (retrieved from www.portoalegre.cc, accessed on February 10th, 2012).

The platform presents the map of the city of Porto Alegre (figure 2 and 3) in which any user can post a “cause”, geolocated in the map by pins. The causes can be critical comments, suggestions or ideas about specific aspects of Porto Alegre, registered and promoted through photos, interviews, films and others.



Figure 2 – PortoAlegre.cc Platform. Each pin on the map is a cause (Retrieved from www.portoalegre.cc, accessed on February 10th, 2012)



Figure 3 – PortoAlegre.cc Platform. A post of a cause (Retrieved from www.portoalegre.cc, accessed on February 10th, 2012)

With the function “My Neighbour”, for example, users can identify an influent resident from the neighbourhood where the cause was registered so that he or she can try to get some support to the cause and make it visible.

The ways of contact and exchange offered by the project are fundamentally based on the online interface of the platform, connected to a deepening cause blog and amplified through two social networks: Facebook and Twitter. To engage users and stimulate continuous interaction within the community, the causes and even pictures that work as teasers are shared daily in the social networks. In this case, it is a way of contributing with the project called “What place is this?”: the user posts a photo of a certain sight of the city so the other users can recognize it and comment about it.

As the initial goal of this project is the collective construction of improvement and new ideas for Porto Alegre, it would not be enough just the existence of a map with indication of the causes connected to the city. The intention of PortoAlegre.cc is also to think about the

causes in the best way possible to solve urban problems and generating visibility for the suggestion and the most interesting ideas.

Face-to-face meetings are scheduled and they count with the presence of Lung and volunteers, who have enrolled in the site to join PortoAlegre.cc, participating more actively in the project and getting in direct touch with the organization.

This way, the Triple Helix model, which guides the basic structure of the project, becomes even more complex and richer with this new element, society, being part of the model. The figure below (figure 4) presents this configuration that uses Henry Etzkowitz's Triple Helix model (2008) as basis.

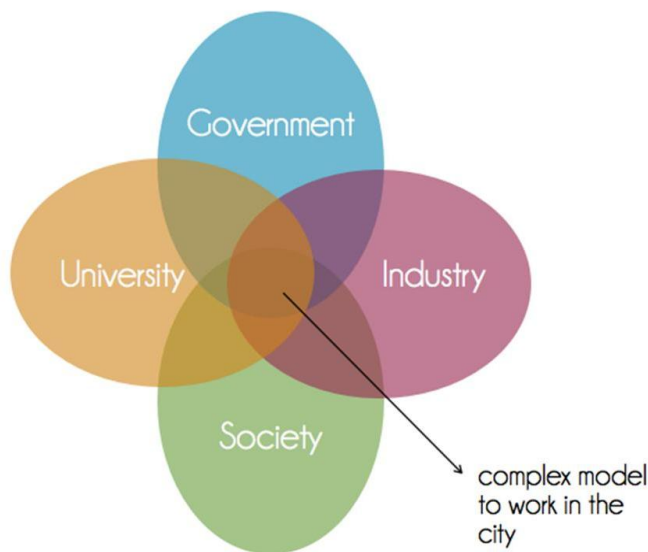


Figure 4 – Diagram representative of the actors involved in PortoAlegre.cc (authors' elaboration of the figure 2)

PortoAlegre.cc is a project that keeps growing and is still being updated to obtain even more significant results than the ones already obtained. However, the logic of listening to the city, generating ideas and co-creating an even better city, is still the core of the project.

Case analysis

The studied project clearly deals with a complex system, the city and the interaction of its citizens, characterized by a high level of dynamism that generates unpredictable situations. In the case of PortoAlegre.cc, unpredictability is a constant, since the project is built by many actors and only happens with the participation of the citizens, who cannot be controlled. To act in this system, it is necessary the acceptance of the consequent risk.

The causes posted are a clear demonstration of concern of the citizens about the city and its future. The causes that are about problem and crisis in the city are debated virtually in the social networks and face to face in meetings with the volunteers, in order to find a solution or make the cause visible, calling the attention of the government.

The structure of the project allows and practically demands the engagement of various internal and external actors. As we have seen, dealing with a broad and complex context, as the ones of the cities, is a task that presupposes great involvement. For an organization that

works in this scope, it is a challenge to map and connect the different opinions and situations that move in the city.

In this sense, we noticed a great pre-disposition of the organizers to listen to suggestions and criticism about PortoAlegre.cc. A clear example is the proposals of new ways of contributing with the project, allowing people with different time availability, different skills and interests to join the cause. We particularly observe that the organizers are predisposed to novelties and tend to search for updating and anticipation, making the project mutant.

The collaborative platform reveals circumstances (crisis or ideas) that consider the view of the most diverse people in an inclusive way. Yet, after posting the causes, when solutions are searched, various groups with same interests are formed. It is as if a network of views about the same problem is established, which results in pleasant and plausible solutions for a bigger number of people.

There is, therefore, the matter of the view outside the city. Internal and external agents to the project participate actively, but they are residents of Porto Alegre. Individuals who live outside the city have a more punctual participation. There is articulation, which occurs in some occasions, with people who were born in Porto Alegre and people who were born there but live outside the city. These people act as an eventual breath for the ideas of the group, being consulted according to the matter being discussed.

The co-creation is part of the soul of PortoAlegre.cc. It is not directly connected to all the decisions related to the project because as any project, this presupposes leadership to be taken ahead, even this being a leadership that listens, learns and adapts itself. However, in the daily life of the project, organizers do not act to lead the creative process, but to stimulate it. When we talk about co-design, the principle of collaboration and sharing of talents is the same: designers and non-designers working as a team, counterbalancing each other's ideas, and acting together including in the creative stages. It is interesting to notice that the organizers are going even more in the direction of co-design. The goal of the actual step of the project, that has just begun, is to promote a series of collaborative workshops with the physical presence of a large number of citizens.

The use of an online platform as the one chosen by PortoAlegre.cc is totally adequate to the context with which the project aims at working. The online platforms generate agility in the process and make the participation of a greater number of actors easier. Besides that, the open online platform strengthens the idea of cooperation and collaboration. This platform grants to PortoAlegre.cc a broad space freedom to express new ideas and to virally foster knowledge sharing and creativity.

This space is the basis of the wide scenario that the PortoAlegre.cc community develops everyday. The set of organizers' stimuli and users' posts and replies, constitutes an organic vision of the different instances that they are proposing in order to change the city and achieve a better future. Moreover, that set of stimuli, posts and replies constitutes a possibly chaotic, but nonetheless strategic loud conversation.

In other words, PortoAlegre.cc does not provide new scenarios of social sustainability and well-being, it is a scenario that all the organizations that are active in the city can use to practice scenario thinking and design.

Final considerations

Nowadays, almost six thousand users are participating in PortoAlegre.cc, posting hundreds of causes and debating them through thousands of comments in social networks for a better city. In a country with problems of social inclusion, the proposal of a platform that guarantees access and stimulates the effective participation of citizens, is definitely the main result of this initiative.

Besides that, it is necessary to consider that Brazil and its cities are growing in a fast and continuous way and that it becomes difficult to follow this dynamic of growth. The processes and tools for co-design, especially if connected to new information and communication technology, allow citizens to follow this dynamic. PortoAlegre.cc is a sort of scenario that is in constant movement as well as the dynamics of cities, for it is fed by postings and replies of an increasing number of users. Participating in PortoAlegre.cc, even with some limitations, means to be part in this uninterrupted flux.

Web 2.0 has many limitations related to the quality of the participation of non-designers in the processes of co-design, but its benefits are undeniable. Forms of co-design that mix face-to-face and remote presence, as it happens with PortoAlegre.cc, can help overcome these limitations and can even tighten the relations of the people involved.

It has highlighted the perception that a collective construction of a new city is a strong agent for the sensible number of adhesions to the project. The inclusion, opening, interactivity and transparency in the processes involving the various stakeholders show to be efficient in the sense of generating a feeling of belonging to the project.

The study of PortoAlegre.cc, finally, shows that the knowledge and competences that the design is developing for a project that is more and more collaborative and interactive, are usable not only in the development of new products and services, but also in the elaboration of new social instances with the direct involvement of various stakeholders and citizens.

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