Infrastructuring Knowledge in Cultural Infrastructure: Informal Example of Participatory Design for Museum Exhibition

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ABSTRACT

This paper discusses infrastructuring as an informal experience of Participatory Design in the context of museums. The authors describe “participation” as an embedded and stable parameter for looking at museums sustainability. Their standpoint is that museums develop and encourage knowledge through participative and interrelated relationships among various actors. Thus, the value of participation intersects the concept of infrastructuring, which implies the ongoing feature, the hybridity of networks and the complexity of the context, and consider together human and non-human. Describing visitors’ participation in infrastructuring processes, the authors underline the unprofessional and unplanned stage of design process in order to stimulate new direction on designing museum exhibition and for planning the introduction of interactive technologies in the museum environment.

Keywords: Cultural Infrastructure, Informal Participatory Design, Infrastructuring Knowledge, Museum, Participatory Design

INTRODUCTION

This paper intersects two literature traditions in order to discuss the creation of knowledge in the context of museums. On one hand we borrow insights from the tradition of Participatory Design for looking at the museum environment as an example of mutual learning and participative environment. On the other hand we link to the infrastructuring discourse for reading at dynamics and ongoing activities in the context of museum. In this perspective, we focus on the theme of participation as core feature of infrastructuring in museums.

By conducting field research in the Museum of Science in Trento (Italy), we observed commonalities on participative dynamics among visitors. Visitors act and stimulate each other for a better understanding on the rationalities of the museum environment. Additionally, visitors
access to unstructured design and participate together to the visiting experience until the learning process mutually satisfies them. Thus, visitors and museum professional mutually and directly participate in infrastructuring knowledge since it is about interweaving participative relations and actions in museum context for the creation of knowledge.

By building on these research insights, this paper reflects on museum as a cultural infrastructure through a participative perspective in order to better understand the dynamics of mutual learning that occurs among citizens in the museum environment. With regard to this frame, we discuss the museum as a cultural infrastructure where citizens participate in the process of infrastructuring knowledge. Specifically, we focus on social and public participation through museum tools and environment for the production of knowledge. Indeed, by taking distance from the elitist practices that belonged to the early stage of museum tradition, over the last century, this institution evolved as a more democratic educative instrument with a public function to support culture and knowledge, through observation and other sensorial experiences (Hooper-Greenhill, 1989; Bennet, 2008). In other words, the public and democratic features of museums concern the right for everybody to access the organized and archived technological artifacts, pictures and diverse forms of representation of life, and information (Bennet, 2008). In addition, over the last few decades, museums became an expanded social phenomenon that converge different institutions and events in the process of preserving and stimulate culture (Macdonald, 2006; Rectanus, 2006). Also, the increased use of interactive artifacts and technologies, and mobile phones and web platforms in the museum environment provide additional tools and opportunities for a participative visiting experience (Proctor, 2010; Simon, 2010).

The term *participation*, with its declination of *participatory*, has been often associated to design a process for investigating, reflecting, developing, and producing *things*, through the participation and inclusion of different stakeholders into the design process. Therefore, Participatory Design (PD) tackles the hierarchical control and emphasizes the mutual learning experience, stimulating knowledge through collective participation. Participation itself has a clear political implication (Ehn, 1992) that, in our opinion, goes together with the democratic meaning and inclusive features of contemporary museums.

This paper is organized as follow. The next section defines the PD maintaining the perspective to the mutual learning effect of design process. The third section describes the meaning of infrastructure and the related meaning of infrastructuring as an ongoing process. We continue the paper interweaving the infrastructuring process and the feature of PD grounding the discussion in the context of commons good. We emphasize here the role of museum institutions as examples of common good, since museums are meant for the production and reproduction of knowledge that belongs to everybody. This explanation of museum moves some steps from the analysis that Hess and Ostrom (2007) suggest for analyzing institutions and proposes a specific intellectual frame for understanding the domain of museum institution. The fifth section discusses the observations we conducted at the Museum of Science of Trento, that reveal a participative experience in infrastructuring knowledge in museum context. We conclude the body of the paper through discussing reasons and intention for interpreting infrastructuring as a form of PD.

**PARTICIPATORY DESIGN: SOME INSIGHTS FROM A CONSOLIDATING FIELD**

In the late 60s, Participatory Design (PD) started emerging in Scandinavia as an approach to information systems development, grounded on political motivations which claimed that (future) end-users of a given technology should have had the right to influence the design of such technology, since this was about to impact their very way of working. While the roots of PD rest on
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