Beyond the Visual in Urban Interactive Interfaces: Dialogue and Social Transformation

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ABSTRACT

This paper discusses the hegemony of the visual and its pervasiveness in current urban installations and technological gadgets. It draws a distinction between functional and playful interactions, showing the prevalence of the former in the design of most interfaces. It discusses interfaces that despite being based on the visual surpass functional interaction by promoting the bodily engagement of people in a playful interaction. This leads to the distinguishing between the interface—which might be reactive, proactive, or dialogical—and the interaction it promotes. It then argues for an interactive interface that moves beyond the visual towards physical action, promoting dialogical interaction. Such a discussion draws from physical computing to enable remote physical actuation to enhance people’s feelings of belonging and presence. It then presents an interface that connects two public spaces through the Internet using physical computing to enable remote actuation. It finally indicates pointers for those future interactive installations that are concerned with social transformation.

Keywords: Body Sensor Networks, Human Computer Interaction, Interaction, Interface, Remote Sensing, Social Transformation

1. INTRODUCTION

Since the beginning of the century, we have been witnessing a period of enthusiasm in relation to emerging technologies. This is clearly exemplified in a group of texts by a variety of authors (Graham, 2004) discussing the overcoming of physical space through information and communication technologies. In such a view, technologies overcome the gap between space and time—being omnipresent and granting remote access to the world in real time.

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However, we cannot ignore the fact that these technologies also present some limitations, interfering with the way we relate with the tangible features of space such as temperature, luminosity and materiality, fragmenting our aesthetic experience by overemphasizing the visual. In this way, most interactive urban installations are strongly biased toward visual rather than tangible features. The resulting experience is more contemplative than bodily engaging leading more to ephemeral rather than socially transformative experiences. Questioning such an approach, the research developed at Lagear (Graphics Laboratory for Architectural Experience) focuses on interaction design in two main directions. Firstly, since 2006, we have been developing interfaces to connect remote communities by spatialising information and communication. This means that interfaces are programmed to engage people in dialogue. That is, interaction is dialogical not the interface. Our second approach concerns the development of interfaces that can enable remote physical actuation by means of physical computing, meaning the interface is also dialogical not only the interaction. There is a clear difference between these two directions concerning dialogue. In the first case the interfaces are visually based but trigger dialogue between people. In the second case the interface, besides having a visually based output, is strongly based on action: the input of people in one location triggers actions of people in another. In this case the interface works dialogically regardless of the interaction of people (which most times is also dialogical). This paper intends to discuss the logic of the visual and its prevalence in urban interactive installations and indicate dialogical interaction and interfaces as a possible means towards social transformation.

2. THE DIALECTICS OF SPECTACLE AND EXPERIENCE

Hegel stated that vision and hearing are the two superior senses, as they do not consume their objects. What is seen and what is heard remain the same, while what is eaten, for example, has a finishing point. According to Alberto Pérez-Gómez and Louise Pelletier (1997) the superiority of vision and hearing over the other senses dates back to classical Greece, when the ‘distance’ that has marked Western science and art was established—when Greek Tragedy separated stage and orchestra from the audience.

The ‘logic of the visual’—to use Henri Lefebvre’s term—has its impact on space first as a ‘spatial practice’, as that of the theatre displacing the ‘lived space’ of the ritual, and only later, in the Renaissance, as the dominant means for the production of space, which Lefebvre calls ‘representations of space’ or ‘conceived space’ (Lefebvre, 1991). Such an impact means a clear distancing from lived space, the space in which people are bodily engaged in its simultaneous design, building and use, towards conceived space, in which design, building and use happen separately.

The hegemony of vision is not usually acknowledged by historians of architecture and urban space. According to Lefebvre, even Sigfried Giedion—the first historian to put ‘space, and not some creative genius, not the “spirit of times”, and not even technological progress, at the centre of history’ (Lefebvre, 1991, p. 126)—failed ‘to show up the growing ascendancy of the abstract and the visual, as well as the internal connection between them; and to expose the genesis and meaning of a “logic of the visual”’ (Lefebvre, 1991, p. 128). However, Pérez-Gómez and Pelletier in their history of architectural representation, point out that such hegemony of vision culminates with the shift from embodied to visual spatial practice. For the user this means a contemplative practice and for the designer it means that perspective and projections are used to foresee space as an object. Moreover, Sérgio Ferro (2006) shows that as well as representing space as an object, this design process serves to make space a commodity.

The privileging of the visual is questioned in some of Pérez-Gómez’s works. For instance, he introduces the ‘erotic paradigm’
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