
Designing Urban Media Environments as Cultural Spaces

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Abstract

Many urban media installations neglect the fact that the installations will be used or perceived in a cultural space, leading to a conflict between content and urban setting. To address this shortcoming this paper discusses the importance of considering cultural aspects of public space when introducing urban media interventions into urban life. We propose the notion of urban media environments, which consist of media artefacts, other artefacts, and modes of interaction and perception, to emphasise the relevance of cultural aspects. The paper concludes with five considerations that can lead to a more successful and sustainable strategy for designing media interventions in urban life.

Keywords

Media Architecture, Media Facade, Urban Screen, Cultural Space, Interaction Design

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms

Design, Human Factors

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Introduction

This paper addresses the issue of “consolidated cross-disciplinary design strategies” for large displays in urban life, which is a difficult task considering the complexity of architectonic installations in public space and the rather short term in which this topic has become a challenge for urban life. We believe that any strategies addressing these challenges should fulfil the following three requirements.

1. They should lead to better projects and a better understanding of their effects on public space. There has been a discussion about the distinction between “research-oriented design and design-oriented research” [2] and about the difference of “research on design, research in design and research through design” [3]. Dalsgaard proposed “research in and through design” as an approach in which research and design are closely interwoven [1]. Our position is very similar but we stress the fact even more that research should not end in itself but lead to better projects through communicable and objective elements.
2. They should be easily applicable to different project contexts. A design strategy should be flexible and generalisable enough to “survive” the particular context in which it was developed in order to transfer learning effects throughout a series of projects.
3. They should be contestable in a rational public discussion. It is important to provide a forum for assessing urban projects that “interfere” with urban life, thus having a political dimension. Everyone affected from such projects should be able to criticise the projects, circumstances, and design strategies under which they were developed. Design strategies should therefore be documented and made available.

Background

Currently there are three common terms for describing media displays in urban spaces that are closely related to each other: Urban Screens, Media Facades, and Media Architecture. We distinguish between these terms through the relationship between the screen element, the architecture, and the urban setting. We understand Urban Screens as large-scale screens that are attached to building facades without worrying too much about the integration of both parts. The screen and the building behind it remain two separated layers in the technical sense as well as in terms of communication. Each layer communicates for itself and in most cases the Urban Screen is more dominant because of its brightness and the moving images on it. Urban Screens also appear as freestanding, independent architectonic element with the single purpose to communicate media content [6]. Media Facades feature a closer integration of the two layers, if not a complete integration into a new hybrid structure. These facades contain integrated light sources or kinetic elements and network infrastructures for power and data distribution. Although from a technical perspective the image production still takes place on certain parts of the facade, this is irrelevant for the perception of the building. In the eye of the spectator the single pixels are merged into one large image. We refer to this interaction between the building and the audience as “Media Architecture”, while “Media Facades” might describe the technical integration into the building surface [4,5]. Media Architecture also includes interactive media installations that work with the depth of space, so that it is no longer possible to speak of a screen or a façade [7].

Urban Media Environments

Urban Screens, Media Facades and Media Architecture all focus on media artefacts. To reflect on these artefacts' impact on public space as well as the cultural setting in which they are embedded, we propose the notion of "urban media environment". Urban media environments consists of: *Media artefacts* such as urban screens, media facades, media architectures, but also personal mobile devices that are either integrated in a local media architecture or that are simply used for personal mobile communication; *other artefacts* like buildings, cars, traffic lights, monuments, furniture and so on; and *specific modes of interaction* as the artefacts invite people to behave in a certain way. While artefacts determine modes of interaction in an environment, they are at the same time themselves the result of or the reaction on a sequence of interactions that took place in this environment. For instance, department stores are often built at a specific location as a response to a long tradition of trading in that space or the installation of traffic lights is the consequence of accidents that happened in comparable urban situations. Similarly the installation of urban screens at a specific location is determined by the location's character, for example using an opportunity where traffic slows down allowing drivers to watch the content of the screen. The notion of "urban media environments" allows us to shift the focus from the "hardware" to the more complex web of artefacts and interactions in a specific space, while also considering the history of the space. It emphasises the fact that objects in public space do not exist on their own, but are the result of a co-evolution of artefacts and the daily interactions of city dwellers. This interdependency has a temporal dimension. Artefacts and interactions continuously produce the next generation of artefacts

and interactions. Thus we consider urban media environments to be "cultural spaces". "Culture" here refers to the historical (or evolutionary) dimension of urban life, which is composed of the inhabitants and their behaviours, buildings, technical developments as well as reflections and theoretical and political concepts that form urban life and its development throughout times.

Design Strategies

Strategies for designing urban media environments need to reflect the specific challenges of public space. For instance, public space has a much older history than digital cultural spaces like the Internet. Thus strategies for designing digital spaces are only of very limited value. Large-scale public installations are difficult to change, as such change requires big investments. Compared to products in digital space, they offer less opportunity for iteration and refinement. Thus, such projects have to be approached under a cultural perspective, meaning that we need to look beyond the design of specific single artefacts like an interactive installation and consider their effect on the entire urban environment instead. Design strategies should enable us to assess and plan the long-term effects of a media intervention in a specific urban environment. We propose the following steps towards implementing a successful strategy for designing urban media environments:

1. We need to understand public space as an environment that consists of (media) artefacts and social interaction. Interactions can be as simple as crossing a square, taking the dog out, or stopping at a traffic light. We tend to oversee interactions because of their ephemeral and invisible nature. Visible artefacts

like cars, traffic lights, buildings and large displays generally dominate our perception of public space. Whyte's study on "The Social Life of Small Urban Spaces" is a good example how urban life can be video documented in a way that could be very useful for design processes [8].

2. Artefacts and interaction constitute each other. In daily life we are mostly not aware and do not question this relation, but as "researching designers" we need to discover the reasons for the behaviour of city dwellers. Specific environments invite people to behave in specific ways: A park makes people walk slower compared to a noisy and busy street. There are different modes of perception when driving a car versus walking down an alley. When we introduce additional artefacts like large screens we need to understand how they influence the holistic system, for instance by comparing the behaviour of city dwellers before and after a media intervention.

3. The introduction of new media artefacts into an existing environment often creates a cultural conflict due to the fact that the display and/or content were produced in another environment. Content displayed on urban screens is often targeted at a mode of perception that belongs to a different cultural environment such as watching TV. Designers of media interventions need to acculturate themselves to the specific context of urban space by analysing the space and developing an appropriate form of perception. This aspect highlights the importance of multi-disciplinary collaboration, which should include architects and city planners.

4. The introduction of media interventions in public space requires several design and feedback cycles as well as a long-term perspective. This also poses a challenge for city planning and administration to

consider the long-term impact of large-scale displays and other media interventions on urban life, while currently these institutions seem to be mainly concerned about the impact on traffic and townscape. It is important to involve designers not only during the project but also on the long term to ensure a sustainable development of urban media environments.

5. A long-term development can only take place when urban media environments are considered as a challenge for society. Thus it is not possible to find the right answers only at a technical level. It finally becomes also a matter of political attitude: We need to influence our political systems in a way that finds the right balance between our basic needs in public space and economic interests. The proper design of media in urban life should be considered as a basic need that in the future will be as self-evident as our need for proper transport systems or waste management.

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