
VR/Urban: SMSlingshot

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Abstract

In this paper we describe the concept and usage of VR/Urban's media intervention tool SMSlingshot which was presented at the Riga White Night Arts Festival 2009 [1] for the first time.

Keywords

Media façade, urban screens, media intervention, mobile tangible user interface, interface design, embodiment, theory / philosophy, interactive art

ACM Classification Keywords

H.5.2 User Interfaces, H.1.2 User/Machine Systems, I.3.6 Methodology and Techniques

Introduction

VR/Urban's SMSlingshot is a conceptual advancement of the spread.gun intervention tool which has been created for the Media Façade Festival 2008 in Berlin [3, 4, 6, 12] and can be seen as an iterative design revision of what we call digital intervention activism in public spaces. By naming our first series of digital intervention approaches as "Reclaim the Screens" we pay homage to a London based collective called "Reclaim the Streets" (RTS) [5]. Like RTS (and Lucius Burkhardt with his "Promenadologie" [7] 20 years earlier), who often stage non-violent direct action street reclaiming events such as the "invasion" of a major road, highway or freeway to stage a party,

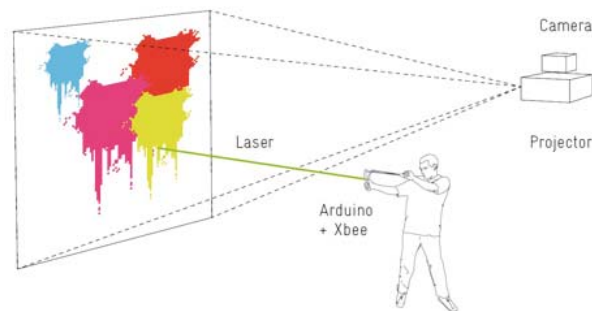


Figure 1 SMSlingshot Setup

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Figure 2 SMSlingshot

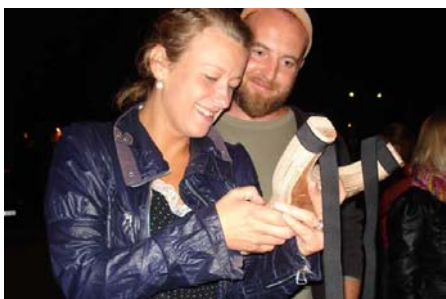


Figure 3 Random people interacting with the SMSlingshot



Figure 4 Honey-Pot effect around the SMSlingshot

VR/Urban seeks for ways to counter the more and more increasing digitalization of the public, urban environment. Not by doing so randomly, but rather by crossing large scale LED media façades and digital billboards that proclaim commercial interests and “order” consumption. The increasing number of these commercial screens is matter of challenge for VR/Urban and subject of being reclaimed for public. The light polluting and intrusive form of commercial ads shown by these screens glare unwillingly the eyes of every citizen, unable to avoid the message being sent by these companies and content providers.

At this point VR/Urban felt that people need accessible intervention devices to have the opportunity of reply to these massive forces of capitalism. After all it is the people’s urban space that got polluted by flickering ads. To put it differently, private owned displays pollute public space. As a result (in our opinion) society degrades in the sense Guy Ernest Debord already described in “The Society of the Spectacle” [8]. Few people appreciate that many people live life merely through purchased representation, namely products, rather living life directly. Most of them are graffiti artists like SEI and KONSUM [11] who understand it well enough to comment urban space to broach the issue of intellectual decline caused by capitalism. In our point of view, graffiti is the only affordable way for individuals to communicate political, social and personal issues in a one-to-many communicational way. However, recent developments in large screen billboards caused a much bigger digital imbalanced force than ever before. Graffiti is not applicable anymore and with that the last remaining voice falls silent.

Fortunately some collectives are already developing new tools of intervention, e.g. initiatives like the graffiti

research lab (GRL), New York [2]. Like them VR/Urban demands the need and also creates tools for digital intervention to get public voices back in urban space.

The design objectives

The concept of “reclaiming the screens” and how that can be done was mainly driven by creating rather a consistent installation/experience than building a fancy technology gadget. This means we focused more than ever onto the design of human perception in terms of *aesthetics*, *dérive (drift)* [9], *social phenomenon* and *emotion*, rather than high tech technology and fancy graphics.

Aesthetic

By origins of the VR/Urban collective all artworks concern the basics of Grigore Burdeas virtual reality triangle [10]. Designing interaction, immersion and imagination in the cross-section of virtual reality and real reality is done by carefully thinking about the qualities of each part of the installation can contribute to an aesthetically perceived whole. Features like the wooden keys of the slingshot or the usage of a physics engine for the visual appearance of the colored splats form the consistent neo-analog feeling across spaces.

Dérive (Drift)

Urban spaces inherently raise the subject of peoples flow. In SMSlingshot and spread.gun [12] we purposely designed the artwork in a way that one or more persons (passers-by) during a certain period drop their relations, their work and leisure activities, and all their other usual motives for movement and action, and let themselves be drawn by the attractions of the installation and the encounters they find there. Especially the honey-pot effect and the usage of image schemas worked very well in our case.



Figure 5 User shooting his virtual message to the building.

Social Aspects

To our surprise the SMSlingshot fostered the communication between people who never knew each other before. Often new people joined the person who was currently typing a new message into the SMSlingshot. In review of this phase of interaction we see it as a good piece of design of interaction, since it serves several purposes at once like acquiring new users standing further away, making new contacts by asking the user what she is doing, learning how the device works and also socializing with the observers standing nearby. All that is a side effect and happens while the user is actually performing in SMSlingshot without having the feeling and pressure of performance, because he is concerned with formulating his message.

Emotions

From the beginning of the design of SMSlingshot the embodiment in interaction was most important. Sending messages to screens by just hitting enter did not link personal feelings to the message composed. The immersion into the message, which you create and the imagination shooting the digital message to a wall and make it public and real left all of the users with a very positive feeling. Reclaiming a part of the city/building with a personal message seems to create a feeling of confidence.



Figure 6 Group of people watching the messages

Summary of Non-functional requirements

Intuitive - Clear image schemas were used during the design phase to support intuitive use.

Unobtrusive – The archaic design of a slingshot is truly embodied in the archaic instincts of men.

Enticing – The interaction is visible to passers-by. They can follow and understand the interaction

between performer and screen and they can easily enter into the performance space by simply asking for the device.

Portable – Our SMSlingshot system can be carried easily and can be shot from any direction, even over kilometers away. Also the projection system is portable and lightweight.

Robust – The device should withstand at least eight hours of usage also surviving shocks from accidentally dropping the device. Also the wireless communication can handle dynamic connections.

Flexible – The technical setup is very flexible since position capturing of the target aimed at can be installed at a different Computer as the rendering computer. Also different numbers of SMSlingshots can be used.

Discussion

Bridging the gap between atoms and bits, reality and virtuality is a recent trend in HCI development. With entering the urban space, we follow this paradigm of tight coupling in a space beyond desktop where norms, architecture, laws and nowadays code become design issues. Interaction design in urban environments is much more complex, since the dynamics of the space needs to be considered. The trend of thinking beyond desktop is currently at its start. Ultra mobile digital artefacts will surround us in near future. We as a group of computer scientists, designers and humans believe that digitality can be used for better reasons than commercial success or higher margins. The public space with its people is what we are interested in. Digitalization is just a phenomenon this space underlies. We cannot change that, but we can support citizens not to become slaves of commercial images.

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