

## **Public Image Unlimited: the transformative affects of interactive public screens**

**Simon Biggs**

University of Edinburgh, s.biggs@ed.ac.uk

### **Abstract:**

Audience interaction with art works, especially in public environments, encourages, is even premised upon, an apprehension of the work where agency is (at least) two-fold and two-way. Interactivity proposes an engagement with a situation that is disruptive of the art work and the relations around it - including those who encounter it and those who may observe such encounters. This paper discusses two interactive projection works, from 1980 and 2001, that each explores how interactive art works in public spaces can be distinctive in reconfiguring the relationships between the key agents - artist, place, viewer and observer.

### **Introduction**

Public screens can transform urban space, rendering it more dynamic and populating public places with the tempo-spatial illusory qualities facilitated through the use of the moving image. Architectural and urban structures, presumed to be static and solid, can appear to become shimmering and ever changing virtual objects. The screen functions as an illusory portal, transmitting and displaying information from other times and places. However, when urban screens are designed to be interactive then transmission can be bi-directional. Our expectations of both civic and informational space can thus be challenged.

Many of the urban screens we encounter are more or less linear in that they are not responsive to either the engaged viewer or oblivious passerby. To a certain extent the non-interactive public screen is a dynamic cosmetic layer upon the static architecture it envelopes. It is arguably the case that when the public screen is designed to be interactive, able to change its state in reaction to the actions of people in the public space it is co-located within, that the potential for the public screen to disrupt architecture, civic space and public interactions is enhanced. It is one thing to give objects the appearance of another time and place, quite another to render them motile and responsive to events in the time and place they occupy. It is also the case that when a screen is interactive it must, by some means or another, be able to sense - and make sense of - its environment. The data so acquired might be employed, initially, to allow the screen to adapt to its immediate context but it can also be used for other purposes, such as surveillance.

In a recent text Holly Willis describes a billboard - but a billboard with a difference.

Let's start with a photograph taken by Hiroko Masuike - of a billboard featuring an ad for the television series *The Andromeda Strain* that was printed in the

New York Times a year ago. The billboard includes a large, horizontal poster for the series, along with a video display showing clips embedded within the poster. What's not visible, however, is a small video camera (made by the company Quividi) that records passersby as they look at the billboard. The company has developed what it calls the "automated audience measurement solution", which documents visitors who look at the billboard, channeling the information into a database, from which it decodes data. It examines factors such as the overall height of viewers, as well as facial features, including cheekbone height and the measurement of the space between the nose and chin. The goal is to determine gender and age, and although the company says it does not yet factor for race, it plans to soon. (Willis 2009)

Willis is describing an interactive screen embedded in a larger scale static billboard that is responsive to passersby. In itself this is not remarkable. We routinely encounter such phenomena in public space. However, what is distinctive about this example is that the surveillance system employed has some capacity for the metric analysis of those passersby. As an urban intervention, incorporating screen, that transmits in two directions, this billboard is reminiscent of how the television, or more precisely, *telescreen*, functioned in George Orwell's 1984 - where the two illicit lovers, Winston Smith and Julia, are monitored during their encounters by a hidden telescreen in the room where they meet. In 1984 the television, or telescreen, is always a camera as well, surveying the activities of all those within its view, creating a rhizomic panopticon that reaches into almost every public and private space. The logic of panoptic systems is not primarily to facilitate direct surveillance, although they might be used for this, but to instill in the public the sense that they might be being watched and ensure their compliant behaviour due to the constant knowledge of being observed. This is a social envelope we are now familiar with in specific public spaces, such as airports and similar transport hubs. The panoptic is now a characteristic of our public spaces and potentially our private spaces as well.

Here we will consider two art works that employ the interactive, and therefore to some extent two-way, public screen in a manner that subverts the panoptic dynamic inherent in the two-way transmission of information. The works we will discuss are Kit Galloway and Sherry Rabinowitz's (USA) *Hole in Space* and Rafael Lozano-Hemmer's (Mexico/Canada) *Body Movies*. Technically, these artists produce works that are relatively similar in that they employ the moving image in a public space using medium to large scale video projection. However, the image generation, transmission and control systems employed in each project are more diverse than that, ranging from analogue video with satellite telecommunications to digital projection with computer controlled interactive systems. One of the artists works with pre-recorded imagery situated in a database, whilst the other works with live imagery, acquired from the immediate locale. Both works employ close-circuit sensing and video acquisition technologies, to allow the creation of an information loop that is used to both create aspects of the work and to control it. In such work interaction is key and therefore agency within the works is important to understanding their ontology.

### **Agency and immersion in public space**

Cybernetics is not a topic often encountered in discussions of agency, where the territory occupied, generally located in or around Actor Network Theory, lies within,

what is often considered, the antagonistic tradition of post-structuralist thought. However, cybernetics offers a useful metaphor for understanding how people experience interactivity, in the form of the 'cybernetic loop' - that condition which can exist where a closed system becomes self-regulating and potentially generative. Ted Friedman has described the cybernetic loop as a condition for the blurring of the real and the virtual:

The constant interactivity in a simulation game - the perpetual feedback between a player's choice, the computer's almost-instantaneous response, the player's response to that response, and so on - is a cybernetic loop, in which the line demarcating the end of the player's consciousness and the beginning of the computer's world blurs. (Friedman 1998)

The key point here is that realism can be considered less the function of the veracity of visual representation but a product of a process of interaction - where awareness of inter-agency affirms the active relationship between the observer and the observed.

Janet Murray, in *Hamlet on the Holodeck*, describes how a heightened sense of realism in a computer game is a function of three variables - agency, transformation and immersion (Murray 1997). Conventional non-interactive public screens can be immersive, simply through the use of scale and the saturation of the viewers field of view. However, immersion is not only an ocular process. All our senses are engaged when we feel fully immersed - and not just our senses. A sense of immersion also depends upon satisfying our expectations, relating to our learned responses in relation to the real world. This takes us into the realm of the psychological and social. This is where agency has an important role to play in ensuring that a sense of transformation does occur and the viewer feels engaged, transported and immersed.

Interactivity and agency are not the same thing. Agency can be a more subtle thing than might be modeled in direct interaction between two or more elements in a system. However, interaction is intrinsic to agency and thus it is reasonable to assume that an interactive experience possesses an agency that a non-interactive experience might lack. Even quite crude forms of interaction can have profound effects on how we sense ourselves in relation to immersive representations, as is evidenced by the point and click action with a mouse in directing the action of an on-screen avatar in a 'first person' role playing computer game. When interaction is more fully enabled, through full-body immersion and multi-modal interaction, then the potential agency, in its degree and dimensions, can also be amplified.

Although we assume that such interactions depends on the use of more advanced systems it is the case that the most simple of technologies can be employed to achieve high levels of interaction, their subsequent affects impacting on people's perception of themselves, their relations with their environment and the elements within it, including other people.

With the early telematic project *Hole in Space*, by Kit Galloway and Sherry Rabinowitz (Galloway and Rabinowitz, 1980), we encounter a highly interactive publicly sited screen based art work that employs no computers or digital systems. The technology employed includes analogue video, sound, projection and an ISDN video-link. The project involved the siting of audio-visual recording and playback

systems at two remote locations, the Lincoln Center in New York and the Century City Mall in Los Angeles. These two sites were linked by a live ISDN video link which allowed passersby in one location to see and hear those in the other. The project ran for two hours per day over three successive evenings. The work was not promoted through the media but was simply installed and turned on. Initially people happened upon the work more or less accidentally and proceeded to interact with whomever had done the same at the other location. However, each evening, as news of the event spread by word of mouth, the size of the audience grew significantly. By the second evening the event had been picked up by the media and featured on national network news broadcasts. Subsequently, people came in large numbers and better prepared to interact with strangers but also to coordinate and meet up with far flung family members or friends they might not have seen for years.

One particular moment, recorded in the documentation of the work, shows two individuals, a man and a woman, each at the other location, standing amidst the respective crowds, conversing with one another as they realise that they are each at different locations at the same time but nevertheless can see and hear one another. The man yells out "Where are you going?" to the woman, who, after repeating his question out loud to assure the accuracy of her comprehension, replies "I'm standing right here with you". The man responds with the comment "I like that baby, I like that". What's interesting here is that the two interactors have made no reference to the physical space that separates them, instead employing language that co-locates them, This suggests they feel themselves to have been transported to a place where they are together. Their interaction and the inter-agency that this allows, along with the immersive characteristics of the media employed, are sufficient for them to be transported and, in this sense, transformed, echoing the dynamics Janet Murray identified as the key transformational property of a successful computer game.

In 1980 *Hole in Space* was undoubtedly a novel experience, decades before web video and applications like Skype were publicly available. However, it would be interesting to see how this work, presented today, might affect those encountering it. There are other artists who have subsequently made more sophisticated telematic works (the work of Paul Sermon is particularly notable here) but to my knowledge *Hole in Space* remains the only telematic work presented between two or more civic public sites. Thus, whilst the technology involved in this work might now be considered rudimentary and common place, *Hole in Space*, as a singular phenomenon, continues to offer unique insights.

### **Making places making people**

A more recent project than *Hole in Space* is Rafael Lozano-Hemmer's work *Body Movies* (2001). Lozano-Hemmer's artist's statement describes the work as follows:

*Body Movies* transforms public space with interactive projections measuring between 400 and 1,800 square metres. Thousands of photographic portraits, previously taken on the streets of the host city, are shown using robotically controlled projectors. However the portraits only appear inside the projected shadows of the passers-by, whose silhouettes can measure between two and twenty-five metres depending on how close or far away they are from the powerful light sources positioned on the ground. A video surveillance tracking

system triggers new portraits when all the existing ones have been revealed, inviting the public to occupy new narratives of representation.

Samuel van Hoogstraten's engraving *The Shadow Dance* (Rotterdam, 1675) is the main source of inspiration for this work. *Body Movies* attempts to misuse technologies of the spectacular so they can evoke a sense of intimacy and complicity instead of provoking distance, euphoria, catharsis, obedience or awe. (Lozano-Hemmer 2013)

Technically Lozano-Hemmer's work is as ambitious for its time (2001) as Galloway and Rabinowitz's was in 1980. However, as with *Hole in Space*, the *Body Movies* large scale public installation relies upon a very simple mode of interaction and, again similar to *Hole in Space*, it seems to encourage playful and highly socialised forms of interaction and engagement. However, a key difference between these two works is how they relate to time and space. *Hole in Space* functions to bring two different places (spaces) together as a shared experience. *Body Movies* brings different times together as a shared experience, employing numerous projected photographs of people - photographs made at an earlier point in time but, very consciously on behalf of the artist, of a similar locale (the same city).

Holly Willis notes that Lozano-Hemmer's work allows viewers to perform themselves, to create instances of social identity:

...the portraits are invisible until people walk into the light of the projection, at which point their shadows reveal the portraits. An exchange takes place between the viewer and the video portrait, resulting in a sense of composited and performed social identity that is at once connected to, and more than, the single, individual body. (Willis 2009)

Willis quotes Lozano-Hemmer, in an interview with Jose Luis Barrios, as stating that "We make buildings and buildings make us". As Willis notes (ibid.), what is the case for buildings is also the case for public space - and it is this that Lozano-Hemmer's work makes explicit. Lozano-Hemmer is very consciously concerned with the public performative and how this functions to make places and people.

Anthropologist James Leach has described how people make things, including people, through the social performative. He has observed how the people of the Rai Coast of Papua New Guinea, through ritualised processes of exchange, 'create' individuals and bind one another in social groups. Leach notes "the role of 'creativity' in the ways people generate new places in the landscape" (Leach 2003), for example through land management (gardening) and musical instrument making (drums), and has argued that,

... in so doing, they also generate new people, who emerge from these places, and objects which facilitate or even participate in these creative processes. Making people and places involves relations to other people and to spirits and ancestors that embody, through song/design/dance complexes, the generative potential of land itself. (Biggs & Leach 2004)

So, what is so for rural places, within agricultural or hunter-gatherer cultures, can also be the case for the architectural facade in civic space within urbanised cultures. This 'making of people' might thus be seen to be a general condition of diverse processes of social interaction. Both *Hole in Space* and *Body Movies* would seem to exemplify these processes - what Willis has described as instances of creating social identity and what Leach has characterised as the making of people and places. In this respect each of these interactive public art works can be considered both ontologically transformative and socially generative.

Simon Biggs, Edinburgh, October 2013

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**Biography:**

Simon Biggs is a media artist, writer and curator with interests in digital poetics, affective, interactive and performance environments, interdisciplinary research and co-creation. His work has been presented internationally and he has spoken at numerous conferences and universities. Publications include *Remediating the Social* (ed, 2012), *Autopoeisis* (with James Leach, 2004), *Great Wall of China* (1999), *Halo* (1998), *Magnet* (1997), *Book of Shadows* (1996). He is Professor of Interdisciplinary Arts, University of Edinburgh. <http://www.littlepig.org.uk/>