Identity Play in an Artistic, Interactive Urban Projection

Geoffrey Shea

Ontario College of Art & Design University

100 McCaul Street

Toronto, ON Canada, M5V 1W6

gshea@faculty.ocad.ca

Michael Longford

York University

4700 Keele Street

Toronto, ON Canada, M3J 1P3

longford@yorku.ca

Abstract

In this paper we review some emerging social interactions which are stimulated by the presence of large, public display screens. In particular, we consider the impact on the viewer's perception of identity through the interaction of large screens with the private small screens of personal handheld devices, such as smart phones. Our research emerges from our experience creating *Tentacles*, a large screen public projection controlled by users' phones.

Keywords
Interaction, experience design, mobile phones, urban screens

ACM Classification Keywords
H5.2. User Interfaces: Theory and methods

Introduction
Large public displays are dramatically altering our built environment. Moving images, animated text and video are increasingly prevalent on elevators, train platforms and roadside billboards and these urban screens are facilitating more complex forms of social interaction. Although the emerging field of inquiry is broad, in this paper we will focus on one specific emerging trend – the co-existence of large public shared screens, and

small private personal screens, and how the two are increasingly able to interact. Our reflections are based on our experiences co-developing a multiuser interactive experience for installation in public spaces called *Tentacles*.

Tentacles is both a large, responsive projection environment that displays avatars in a shared space, and a custom application for the Apple iPhone/iPod Touch that turns the device into a remote controller. The application, *Tentacles 2.0* is available in the Apple App store as a free download. Together, these two features of *Tentacles* enable individual viewers, players or passersby to participate in a multi-user, location-based, game-like experience projected into public spaces. Although *Tentacles* shares some features with games, it doesn't look or act like standard console based games and in this initial iteration we've tried to avoid standard gaming conventions. There are no levels, no overt objectives, no winners or losers.

Tentacles has been presented in urban environments, indoors and out, projected onto walls, and giant outdoor screens on the sides of buildings. The projected experience reveals an inky pool of darkness found deep near the ocean floor where users interact with one another by controlling a squid-like life form while in search of life-sustaining micro-organisms. *Tentacles* transforms the phone into a remote control or virtual joystick that allows you to interact in real time with these primitive, hybridized creatures, whose bodies are created from a library of ink blobs, organized in ways that mirror each other – not unlike a Rorschach test. Together they reveal layered references to the organic, the analogue and the digital.

One of the objectives was to create an ambient play environment in a public space – something without a beginning or an end that participants could join and leave casually. By 'public space' we are referring to a locale where many otherwise unrelated individuals are able to view and interact with a common moving image. A gallery façade on a city street, screens at a film festival party, the sides of buildings or large-scale screens found in city squares are possible locations for *Tentacles*. But in each case, it is important that the participant be aware that they are sharing the experience of viewing with others, often in the context of a crowd. This locativity – or specificity of location – ensures that there is a parallel social metaphor. The life forms on the screen participate in a play of interaction or avoidance, which could be mirrored by the life forms standing in the street. This public being and public action, which operates on different levels, but in immediate proximity to one another, is a base requirement of the *Tentacles* experience.
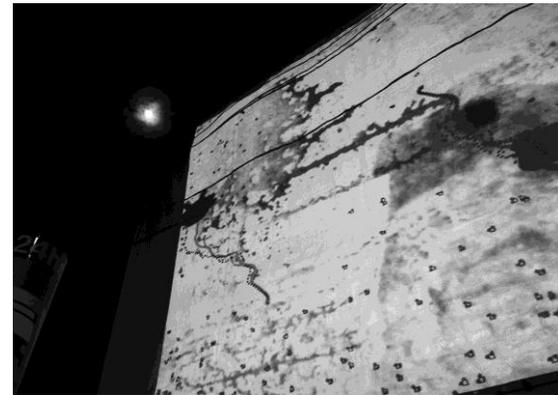

Figure 1: Tentacles installation. Nuit Blanche, Toronto, 2009.

Our hope was, through interaction, the experience would inspire a kind of spontaneous public performance. Operating from within the crowd, viewers had the opportunity to 'step onto the stage' of the projected environment – to display themselves in action, engaged with other virtual creatures. Text messages within the system, for example, are not sent to each other's private, small screen view, but rather are posted to your public, large screen self. Similarly, the way that movements, gestures and displays become part of this spontaneous public performance is suggestive of the activity on a dance floor, where typical rules about decorum, reservation, engagement with strangers and physical contact are suspended. A private, gestural experience is amplified publicly as a by-product of being within a crowd, as opposed to being a self-conscious performance staged for the benefit of the viewer. Here, in *Tentacles*, the differentiation between viewer and participant is effaced.

Figure 2: *Tentacles* iPhone interface & users.

An artistic metaphor of the large screen as the 'field' (background or environment) and the many small screens the 'figures' (agents or citizens) comes to life with the structure of the accompanying musical score. *Tentacles* includes a background soundtrack that plays in conjunction with the large screen augmented by a library of smaller musical elements, which play asynchronously on the small screens. When you engage, your device springs to life, emitting sounds which complement or run counter to the musical soundscape, calling to and enveloping passersby and proliferating as more people around you participate in the experience.

At this point players and non-players become acutely aware that the creatures on the large screen represent participants who are in the crowd around them. The multiple sound sources, like the multiple participants holding onto their small devices, combine to form one single social entity, which is only partially revealed on the large screen in front of them.

Together, the performative action and the recognition of that action as stemming from others highlights the twin social and subjective constructions of identity. As with many artworks, the presentation of multiple perspectives encourages the examination of one's own role within the group.

In terms of the user experience, people are immediately engaged in a sense of wonder at the magic of radio waves enabling us to interact in real time from a personal handheld device with a public projection in an architectural space. The interplay of scale – the small screen in the palm of your hand contrasted with the large public screen on the facade of a building –

parallels other core human experiences. The intimacy of touch, for example, is threatened by the supremacy of projected, broadcast visual stimuli, while the screen – the sign – forms a kind of text waiting to be read. Your personal space simultaneously shrinks and expands as the tiny gestures you make with your fingers are magnified for all to see. Public and private stand in stark contrast, highlighting dichotomies like wireless and wired, perception and cognition, knowing and being.

In this way, the sharing of space on the large screen and the non-sharing of the small screen throws us into a consideration of identity. On one hand our creatures are an element in a world, a member of a community. They participate in an accelerated life cycle – born with the click of a button, they glide through a fluid environment, eating, occasionally entangling with the other creatures around, by accident or design. With another click of a button, they expire and explode into hundreds of tiny particles, ready-made food for those around them. At the same time, their individual identity is rooted outside of the large screen environment, steered and directed by an invisible other.

Conclusion

The use of a single, large-screen display for a shared, real-time, social activity has presented numerous technological and social research opportunities. For example, a contrast has emerged between typical online anonymity and on-site engagement with other participants.

Additionally, the reliance on a specific mobile phone platform and its attendant data service plans or network requirements has necessitated specific presentation strategies such as providing devices to would-be players, and implementing free Wi-Fi in the immediate area.

In creating *Tentacles* we chose to divide the interactive experience between what was shared publicly on a large projection screen and what was revealed solely to each participant on their own device screen. This is leading us to new understandings of the elements at work in this interaction that we will be able to explore in our ongoing work. The relationship between space and image, for example, is changing quickly. The image is no longer a discreet object or entity as it once was, but is now an element in an environment, which includes architecture and activities. Place become simultaneously more specific and more fluid. Small screens allow us to be anywhere, while large screens encourage us to be exactly 'here.'

These intersections, between images and other people, operate like liminal spaces. It is this in-between, filled with unstructured potential, that encourages the imaginative viewer to become an active participant, to engage and contribute and play.

Ultimately, as in all social realities, it is neither 'this' nor 'that' that becomes important, but the connections.