

Playing with Surveillance

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INTRODUCTION

Night and darkness typically evoke images of danger and crime. While the image of a crime occurring late at night is often exaggerated on television and in movies, statistics from a recent police log in Berkeley, California indicate that incidents do, indeed, tend to take place late at night. Between October 14, 2007 and October 30, 2007, out of a total of 384 incidents reported, 210 took place between the hours of 6 p.m. and 6 a.m. [2]. It is common in many places to implement additional security and surveillance measures after dusk. Residents entering the dormitories after 5 p.m. at the University of California at Berkeley must present their student identification cards to a security monitor at the front desk of each building. The cards are then swiped to confirm residency at each individual hall before entrance is granted. Guests and other non-residents must be signed in by a resident and personally escorted into the building. Night escort programs are also available on many university campuses, where escorts accompany students as they walk home so that they do not have to walk alone. The number of security guards monitoring a building or patrolling the parking lots of business districts and shopping centers often increases at night. According to an occupational guide published by the state of California, at least two-thirds of the work done by security guards is at night [11]. These examples suggest that there is a precedence for illicit activity occurring after dark and that there is a need for extra surveillance and security.

In the aftermath of the terrorist attacks on September 11, 2001, a noticeable increase in the number of security and surveillance measures has been observed, not only at night but around the clock surveillance. [2] and [9] assert that in light of the terrorist attacks occurring worldwide, we are quickly becoming a “surveillance society,” in which our everyday lives are permeated by surveillance encounters. The ubiquity of surveillance technologies compromises our anonymity and rights to privacy. The relationship between who is being watched and who is doing the watching is often one of power and control. A number of activist groups have initiated counter-surveillance campaigns in reaction to this tension, in which they intentional misuse surveillance technologies to publicize and protest the prevalence of surveillance in our society [5,6].

Other surveillance technologies such as digital cameras and GPS devices are quickly becoming ubiquitous in urban environments as well. However, the focus of such groups as the Surveillance Camera Players [5] and the Institute for Applied Autonomy [10] has primarily been on the use of closed-circuit television (CCTV) in public places. As new surveillance technologies emerge, the boundaries between what is public and private are blurred. These gray areas are further obscured when surveillance manifests itself in alternate forms that deviate from the stereotypical example of a video camera and CCTV.

Playful practices have been suggested as a promising way to reflect and extend upon existing technological uses and interpretations [8]. The iSee project is an application that charts the locations of surveillance cameras in urban environments and, given a start and end point, maps out paths that people can take to avoid being captured on camera by a CCTV camera [10]. In urban environments in which surveillance technologies pervade the city, such as New York City and London, intentionally avoiding CCTV becomes an almost game-like challenge and doing so often requires that a person follow an inefficient route. Benford et al. describe a game in which players physically run through the streets of a city and their locations are tracked via GPS receivers [1]. The object of the game is for a group of online players to avoid being “caught” in a virtual model of the city by the runners who chase them in the physical world. The locations of both the runners and online players are tracked in the virtual world and disclosed to all players. These systems exploit surveillance as a playful practice and through their playful aspects, have lessened the stigma of privacy invasion normally associated with surveillance. In this paper, we present a playful design of our own, which focuses on a mobile surveillance device: the camera phone.

MOPIX

An emerging technology that is democratizing surveillance is the camera phone. While mobile phones typically embody notions of remote communication, most phones on the market today have the capability to function as much more than a private communication tool. Tiny cameras embedded into mobile phones and wireless infrastructures equip the everyday consumer with a cheap, portable

surveillance device. Recent reports have documented crime victims using them to capture the faces and license plates of their attackers or for “technological vigilantism” [4].

While surveillance technology typically carries a negative connotation for its usage, we would like to explore it as an agent of entertainment and remote interaction. Our design, *mopix*, is a location-based mobile photo-sharing platform that supports interaction within public spaces. Users can interact with *mopix* by taking photos with their camera phones and uploading them to the system. *mopix* will consist of a number of public displays distributed throughout an urban environment. Each photo will be tagged with the location of where the image was captured. When a user uploads a photo, it is then distributed to the display that is closest to where the photo was taken. By sharing these digital traces of a user’s spatial and social contexts, users can engage in a playful process of surveilling and being surveilled.

Other users will be able to interact with the photos by viewing them on the public displays, rating them, and leaving comments. The frequency in which a photo might appear on a display will be determined in part by how long ago it was taken and uploaded, its rating, and the number of comments it has received. This provides opportunities for interaction not only for the people who uploaded the photos but spontaneous interactions with people who happen to encounter a display. By providing accessibility to these photos in a public forum and allowing other users to further annotate them with comments, we hope to support a new genre of communication in which the photos serve as catalysts for interaction, as well as artifacts for socialization around which communication can take place.

Our design for *mopix* was inspired by an observation we made of a woman taking a photo with her phone in a shopping mall. The woman was photographing an object in a store across the walkway, but another woman sitting nearby hid behind a baby stroller in an effort to avoid being in the photograph. To the first woman, her camera phone was a device she could use to capture a memento from her experience at the mall. To the second woman, the camera phone was an unwanted surveillance device that was invading her privacy and anonymity.

CONCLUSION

The public has long been concerned about surveillance and its privacy implications. However, the notion of surveillance is culturally appropriated, and between varying surveillance systems lie different answers to the question of *who* is being protected against *what* and by *whom*. Surveillance makes the invisible visible and blurs the distinction between what is public and private. Tensions arise when people hold differing opinions as to where these boundaries need to be drawn and affect how a technology is perceived or interpreted. By taking a playful approach in our design, we trivialize aspects of surveillance that are

typically disconcerting to users, while at the same time, providing engaging experiences with the system and between users.

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BIOGRAPHY

I received a B.A. in computer science from the University of California, Berkeley in 2003 and an M.S. in Information and Computer Science from the University of California, Irvine in 2006. I began my Ph.D. study at U.C. Irvine in 2004. My research interests are generally in the realm of human computer interaction and ubiquitous computing. More specifically, I am interested in designing for mobility, the representation of presence in shared spaces, and exploring the ways in which technology enables meaningful shared experiences in public spaces.