The Social Dimension of Security: Exploring How Surveillance Systems Relate to Interior Design

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ABSTRACT

Recently, security issues have been dominating the headlines and policy makers’ lists of promises. Although the notion of security has long been integral to interior design, the current reliance of security measures on surveillance systems that use cameras and video monitors warrants revisiting the role of interior designers. With an overview of the literature on how electronic surveillance has been conceived, perceived, and practiced, this paper aims to set the stage for a dialogue about the opportunities that arise through greater involvement from interior designers.

The analysis points to a disconnect between the systems’ application and the fusion of the physical, social, and technological dimensions of electronic surveillance into a holistic scheme. Current debates raise concerns over its aesthetic integration into the overall building design as well as its associations with feelings of fear and control, loss of privacy, discrimination, inequality, and cultural/gender insensitivity.

Directions from academicians, designers, artists, and educators help frame the paper’s thesis that electronic surveillance can act as a connecting mechanism that connects people to people as well as people to the environment. Pedagogical implications of this premise suggest that by including the term “surveillance” in the terminology used in the interior design field and positioning security and surveillance in the conceptual stages of the design process, the potential for creative solutions and opportunities to challenge perceptions of fear and threat are increased.

Introduction

Recently security issues have been dominating the headlines and policy makers’ lists of promises. As a result, public surveillance through the use of camera systems has intensified and permeates many aspects of American lives, from airports and schools to city streets and private residences (Lyon, 2002; Neyland, 2004). Exemplifying the debate around these ever-present expressions of surveillance are critical inquiries ranging from newscasts that raise awareness about “prying eyes” (Ryan, 2008) to a featured article on The Chronicle Review, titled “Privacy in the digital age: How surveillance and marketing expose us” (Vaidhyanathan, 2008). The questions are: “What are the implications of these technologically based notions of security for the design fields, particularly interior design?” and “What role can interior designers play in the development of security schemes that involve electronic surveillance and the use of cameras and videos to ensure the safety and well-being of their clients and users?”

Historically, the notions of security and surveillance have been closely linked with natural surveillance (i.e., the ability to see what is happening) as a means of achieving security. Relying heavily on the physical dimension, both security and surveillance fell within the domain of architects and interior designers. Strategies employed physical manifestations of
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the built environment that ranged from watch towers and fortification walls around ancient and medieval cities to open spaces in malls, windows with views to the street in homes, and sight lines across retail stores (Demkin, 2004; Saleh, 2001).

Instrumental to the success of security schemes that rely on the physical dimension is the idea of involving those in need of protection, the actual users of an environment or the social dimension, into the security scheme. Building off Newman’s (1972) Defensible Space, the social dimension can include residents, neighbors, bystanders, employees, visitors, or even coworkers walking each other to their cars. (White, 2006). In his landmark study, Newman advocated providing home dwellers with surveillance opportunities. He suggested “a strategy for designing spaces [in multi-family housing units and neighborhoods] that would deter crime and disorder by making people feel responsible for public areas through a sense of ownership” (Artfield, 2000, p. 181). Newman’s ideas of strategically blending the social and physical dimensions to achieve security through surveillance guided the design of buildings for decades (Straight, 2002) and served as key characteristics of Crime Prevention Through Environmental Design models (CPTED; Crowe, 1991; Demkin, 2004; Jeffery, 1977; Minnery & Lim, 2005; White, 2006).

Today, however, security more heavily relies on technology and electronic surveillance systems that involve cameras and videos (such as closed circuit television systems [CCTV]). Because of these technologies’ inherent use of electrical and mechanical systems, electronic surveillance schemes are typically the realm of engineers, with architects and interior designers playing a much smaller role. The result is a downgrading of the physical and social dimensions. On the physical level, cameras are rarely initially integrated into the overall design proposal, neither do they serve as part of the design’s conceptual basis. Instead, cameras are often treated as add-ons, added onto the walls, ceilings, or structural elements of a building along with other electrical equipment (Figures 1 and 2).
Similarly, video monitors are typically located behind operators’ desks or are hidden from public view in operation rooms, which can be on or off the site (Figure 3).

In parallel, the users of the spaces to be protected, (i.e., the social dimension of electronic surveillance schemes) are not engaged in the security scheme. Since the engineer’s focus is on technology, the needs and concerns of users are not accounted for.

Interior Design is a user-centered field with a mission to protect the public’s health, safety, and welfare therefore, starting a dialogue around the potential role of interior designers in the conception and implementation of electronic surveillance schemes that recognize the social dimension can expand the field’s contributions to the realm of security. Limited studies, though, have dealt with electronic surveillance from the interior design perspective, making answers to questions like “What does it mean?” “What does it entail?” “How is it practiced?” and “What are the implications of current approaches to electronic surveillance?” are hard to find.

Expanding interior design’s body of knowledge in this arena can enable the discipline of interior design to participate in current debates on the problem of electronic surveillance theoretically, practically, and pedagogically. By having a foundational knowledge and being cognizant of how the social dimension of electronic surveillance relates to interior design, students, practitioners, researchers, and educators can have at their disposal more variables through which to work toward meeting the field’s mission of protecting the public’s health, safety, and welfare. An investigation of how electronic surveillance is conceived, perceived, and practiced can establish how electronic surveillance can serve as a “connecting mechanism” and through which interior design can help to bring the humanity of their constituents back into the picture. And, in so doing, balancing the need for security with the potential for connections.

**Purpose and Method**

Through a literature review of past and current conceptions, perceptions, and practices of electronic surveillance, this study aims to begin a dialogue among interior design educators and practitioners. Because of their training and user-centered focus, interior designers are in a prime position to help bridge the physical, social, and technological dimensions of security schemes that involve electronic surveillance. As experts in working with the physical and social dimensions of built environments, interior designers can also engage the technological dimension into a holistic approach to security and well-being.

As a way to help structure this dialogue and add to the interior design body of knowledge, this paper brings together multidisciplinary findings, from the fields of design, geography, sociology, and engineering. The analysis explores four primary questions:

1. What do the terms security and surveillance mean?
2. How does electronic surveillance manifest in current practice?
3. What are electronic surveillance’s social implications?
4. How did academics, artists, designers, and educators respond to these debates?
Background Information on Electronic Surveillance

Before delving deeper into how interior design can broaden its engagement with current perceptions of electronic surveillance, reference must be given to what the term means, how it manifests in design practice, its physical/technological dimensions, the goals and objectives of electronic surveillance, the parameters taken into consideration in its execution, and who is involved. As a way to embark on this journey, surveillance’s relationship to security must also be explored.

Definitions

The dictionary definition of security is: freedom from danger, fear, or anxiety (security, 2008). Based on this definition, security is a conceptual term, one that refers to a state of calmness or the condition that is tied to the lack of feelings experienced by those who are afraid or threatened. Its reference to freedom further defines the term’s universal character, aligning security within basic human rights and needs (Maslow, 1954). Surveillance’s dictionary definition is: a “close watch kept over someone or something” (surveillance, 2008a) or “the act or state of being constantly attentive and responsive to signs of opportunity, activity, or danger” (surveillance, 2008b).

Complementing the dictionary definition of security, surveillance is not about how one feels; instead it is about the actions one can undertake in response to the feeling of threat. Surveillance’s associations with “action” as a means toward security sets the stage for an exploration of diverse types of responses as well as redefinitions of the feeling of threat.

However, when it comes to the built environment and the design literature, security loses its conceptuality, translating into practical requirements that cater to “the prevention and detection of intentional, humanly motivated threats such as criminal, terrorist, and other malevolent acts directed toward buildings and their occupants” (Knoop, 2004, p. 2). Surveillance, on the other hand, which literally means “watching from above” (Mann, 2004, p. 620), refers to “monitoring, observing, and sometimes recording events and conditions in and around a facility” (Atlas, 2004, p. 39). Electronic surveillance is surveillance that uses camera and video systems, which can range from a single camera in a private residence that is monitored by the owner (Trucco, 2006) to CCTV systems placed in the interior and exterior of buildings and public venues with operators monitoring for suspicious behaviors, located on or off the site (Groombridge, 2002; Haw, 2005; Klauser, 2004; Müller & Boos, 2004; Walby, 2005). Instrumental then to the re-envisioning of what security and surveillance could mean and could be is experimenting with how the conceptual and practical implications of the terms can be merged.

Adopting Electronic Surveillance

Important to these discussions is the fact that electronic surveillance is one of the many security measures adopted to protect people in the built environment. Given the extensive list of elements that must be protected—from human and physical resources to intellectual information (Grassie, 2004a) as well as the multiplicity of environmental settings (building types, sizes, and uses), one can rightfully expect variety in the types of security measures employed to achieve protection through the design of the built environment. Variability is therefore a key component of security schemes in contemporary buildings and settings, and it can involve physical layout, access control, environmental design, as well as electronic surveillance systems (Grassie, 2004a). Studies confirm the additive impact of multiple security responses—the more types used, the better off the outcome of crime reduction would be (Casteel & Peek-Asa, 2000).

As a way to determine the type of security measures that are needed to secure a venue, a security assessment takes place that looks into what needs to protected as well as any potential threats and vulnerabilities (Grassie, 2004a)—although sometimes, levels of security selected can be personal and can vary with the client (Trucco, 2006). With the security assessment in hand, security
measures are chosen on “the basis of their individual and collective ability to prevent, detect, control, and mitigate risks” (Grassie, 2004a, p. 75). Electronic surveillance is thereby adopted in buildings ranging from prisons and banks (Verburg, 2000) to schools (McLellan, 1989), shopping malls (Bergsman, 2003; Helten & Fischer, 2004a; Lutz, 2002), private residences (Vidler, 1999), senior housing (Bryant, 2001), and public housing (William, Webster, & Hood, 2001), as well as mass transit sites, like airports (Wilson, 2005) and government buildings, which have the most stringent security measures in an effort to save lives and prevent injury (Nadel, 1997). The diversity in the number and type of venues that implement electronic surveillance strategies can only be paralleled by variability in how the systems work, making surveillance as a connecting mechanism a possible alternative.

Parameters for Consideration
Knowledge of the parameters involved in the implementation of the physical and technological dimensions of electronic surveillance are important in a dialogue around how to strengthen its social dimension component. Designing electronic surveillance systems implies looking at parameters such as the strategic positioning of cameras and their number, type, and use as well as issues like appropriate lighting (Grassie, 2004b). Oftentimes, systems like lighting, heating, air conditioning, entertainment, and electronic security can be integrated holistically, resulting in what has been termed “smart” buildings (Trucco, 2006). Among the challenges, though, is the question of whether to hide or show the camera systems. Viewpoints vary, as some consider visible cameras as nonintegrated elements on a building that disrupt the feeling of openness, while others prefer them to be visible to act as deterrents to crime. From the many camera models available, the dome is perceived as mediating the concern for aesthetics and deterring crime (Figure 4; Grassie, 2004b). However, as the discussion later reveals, people often feel uncomfortable in the presence of cameras. Adding the social dimension in the debate around electronic surveillance raises more questions than answers, prompting the broadening of design decision-making processes to include the concerns of users. Interior designers, due to their expertise in caring for users’ needs, can help move this dialogue along.

Who Is Involved?
Lastly, being cognizance of who devises electronic surveillance schemes and when they get involved opens opportunities for collaboration. Integrating any security strategy into a design proposal must be done at the early stages of the building’s conception, as it is much simpler, more successful, and more cost-effective than retrofitting an existing building (Demkin, 2004). Given the complexity of potential security responses and electronic surveillance systems, designers must typically team up with specialists. For example, in the design of the Mall of America outside the Twin Cities of Minnesota, the architectural firms Hammel, Green, and Abramson and KKE of Minneapolis collaborated closely with security consultants, as security was one of the most decisive factors in the building’s design. The architects used techniques such as breaking up the building’s mass into less intimidating smaller sections and placing parking spaces no more than 300 ft from a door into the mall. Engineers, on the other hand, dealt with the camera placement and the system’s operation (Thrash, Lindgren, Newman, & Voelcker, 1992). Engaging in an inclusive dialogue, one that operates on open channels of
communication with practitioners from other fields, is instrumental to a constructive exploration of how interior designers can partake in these discussions. By exposing interior designers to the approaches and knowledge of other fields on the topic of surveillance, this paper can form the basis for such conversations.

**Surveillance’s Relationship to Crime, Fear, and Quality of Life**

Any dialogue around electronic surveillance cannot go far without an understanding of the goals and objectives behind the design of security schemes. The goals of appropriate design and use of the built environment with regard to security are to reduce the opportunities for crime, reduce the fear of crime, and thereby improve quality of life (Atlas, 2004). Although much research supports the idea that electronic surveillance reduces opportunities for crime (see William, Webster, & Hood, 2001), further analysis sheds light on the many questions surrounding electronic surveillance’s ability to reduce the fear of crime and improve quality of life.

In terms of objectives, building security has three primary objectives: to detect the presence of threat, to deter its occurrence, and to respond accordingly. Electronic surveillance, in its current conception and use, meets primarily the first two objectives (Atlas, 2004). Typical uses of electronic surveillance systems include visual assessment of an alarm or event, area surveillance and monitoring, and deterrence (Grassie, 2004b). Response, the ability to respond to or intervene in a threat, has room for further development. Responders can be official (law enforcement or private security forces) or unofficial, like building users (Atlas, 2004). The possibilities surrounding the integration of the social dimension into electronic surveillance schemes that meet all three objectives can be expanded, through a dialogue with interior designers.

Such a dialogue, would be off course without incorporating knowledge gained by archiving—a fourth use of electronic surveillance which entails the gathering of data to be used later. (Grassie, 2004b). This particular use gives rise to many debates about surveillance’s beneficiaries—is it the public or the police?

**The Paradox—Electronic Surveillance’s Disconnect from the Social Dimension**

The fundamental question surrounding electronic surveillance systems is whether they actually help in fighting crime as well as fear—the main goals of security planning. Do surveillance systems ‘free’ the public from physical harm and the social harm that comes from fear? In exploring that question, researchers have identified “the security paradox.” According to Ivy (2002) “…when security systems assert themselves most forcefully fear, discomfort, and even danger often flourish; conversely, the absence of visible protection can promote the feeling of well-being” (p. 15). Inadvertently, “the perception of surveillance is more powerful than its reality. Hidden cameras do little to make normal users feel safer and, therefore, act safer when they are unaware of the presence of these devices” (Crowe, 1991, p. 107). This duality—feeling safer and feeling uncertain—represents the dilemma of surveillance that designers have to overcome.

For the most part, the public perceives surveillance as “someone is watching” rather than “someone is protecting me” and that someone is watching with the primary aim to control—controlling access to buildings, controlling behavior by reminding users of certain rules of conduct in the area, controlling outcomes of disputes by collecting evidence through the recording of inappropriate or criminal behavior that can be used in subsequent investigations, and controlling the flow to prevent public panic such as at major traffic accidents, fires, and terrorist attacks (Klauser, 2004; Manolescu, 2003; Müller & Boos, 2004). The idea of electronic surveillance as control appears in building types as diverse as airports and nurseries, where parents can monitor their children’s well-being from their work (Jørgensen, 2004).
Behind the security paradox, then, is the disparity between the conceptual definition of security as “freedom from fear” and surveillance’s practical application as “control.” Feeling that everyone’s everyday life is now subject to the same kinds of surveillance as war-ridden places like Iraq leads to disdain and distrust (Vidler, 1999) as well as the feeling that being constantly monitored amounts to being in prison (Shiffer, 2001). Advocacy groups like the Surveillance Camera Players (The Surveillance Camera Players, n.d.), who question the presence of camera systems in public areas such as streets, were born out of a reaction to the perception of surveillance as a means to control. Once again, having the interior design perspective in this debate will broaden and deepen both the questions asked and the ways by which they are answered.

An additional concern is that, knowing they are being observed and monitored, people feel uncomfortable (Groombridge, 2002; Helten & Fischer, 2004b), often reacting negatively by withdrawing away from cameras (Helten & Fischer, 2004b). This is why most malls have no signs indicating video surveillance is in operation, partly because of fears that customers will be uncomfortable (Bergsman, 2003). Invasion of privacy is another issue (Gray, 2003; Lyon, 2002; Schiff, Meingast, Mulligan, Sastry, & Goldberg, 2007) because surveillance systems can keep track of people’s personal lives and enable observers/operators to identify particular individuals.

Lastly, cultural and gender differences complicate the question of surveillance. Conceptions of what is appropriate and inappropriate “watching” differ depending on culture, region, gender, ethnicity, nationality, class, and income (Lyon, 2002). Disconcerting findings relate that, often, operators use the systems in discriminatory ways. Fyfe and Bannister (1996) highlighted how surveillance technologies can be used in the “removal” of undesirable groups, like the homeless or ethnic minorities. Norris and Armstrong (1999) found that operators often held exclusionary attitudes and used racist language to refer to minority groups. Similar conclusions were drawn by Helten and Fischer (2004a) in their research of Berlin shopping malls, where they pointed out that CCTV operators often focus on people who look “different” from others, such as foreigners, young people, and “the homeless-like,” based on elements like their body language. Discriminatory practices prompted Walby (2003) to interpret CCTV video as a rolling text, which is an active constituent of sociality. Though he mentions that “CCTV operators employ a diverse array of texts, including the log book, the criminal code, the incident report, pictures, and the video itself” (p. 210), it still seems that the operators’ immediate intuition has priority over other texts in the setting. Such an implementation of electronic surveillance is disturbing at a time when racial and ethnic discrimination are at the forefront of public debates surrounding the effectiveness of techniques such as profiling in increasing public safety. Moving away from operator-centered systems and involving the social dimension in surveillance schemes might begin to address some of these concerns.

With respect to gender differences, Seabrook and Wattis (2001) question surveillance systems’ relevance to improving women’s safety. Their study showed that “CCTV represents a heightened manifestation of the male gaze with technological advancements allowing men [operators] to put women under surveillance yet again as the sexualized ‘other’” (p. 258). They therefore call for a greater understanding of the “subjective nature in which young women come to negotiate their use of public space” (p. 259), challenging that decisions about where cameras are placed and what areas are considered dangerous should account for the female experience. Women in general have been found to report more anxiety and to feel more negative about surveillance than men, while surveillance systems have been found to open up opportunities for sexual harassment offenders (Koskela, 2002). By the same token, Helten and Fischer (2004b) showed that women often felt like they were being attacked when they realized they were under surveillance. When applying surveillance systems in a culturally diverse society such as the United States, cultural/gender differences in notions of privacy and photographing must be incorporated in the decision-making process. Interior design, a
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field that cherishes well-being and user needs, can contribute to these efforts both pedagogically, through curriculum changes, and research-wise, through expanding investigations in the security arena.

Reframing Surveillance—Surveillance as a Connecting Mechanism

As the above discussion showed, electronic surveillance as a means toward security is tied to negative connotations and notions like threats, crime, fear, control, loss of privacy, discrimination, inequality, and insensitivity. Such perceptions overpower security’s positive energies that are linked to its definition as “freedom” as well as the goals of security schemes to reduce fear and improve quality of life. Helping to set a trajectory by which to structure a dialogue on reframing electronic surveillance are academics, artists, designers, and educators who call for a broadening of the meaning of security and an exploration of how to infuse the social dimension into electronic surveillance schemes. Electronic surveillance’s potential to lead to growth and adventure as well as to be a medium through which to rethink social relations is closely linked to incorporating the social dimension in electronic surveillance schemes—long an aspect of Newman’s Defensible Space and CPTED models but not inherent in electronic surveillance schemes. As recently as the beginning of the 21st century, Lyon (2001), who called modern societies “surveillance societies,” emphasized the importance of coordination between the risk of surveillance technologies and social integration, suggesting the involvement of the public, cultural aspects, and politics of surveillance as areas that future studies should explore. Building on these calls, this paper proposes the paradigm of surveillance as “a connecting mechanism”—as a means to connect people to people and people to the environment.

Academic Directions

Academics have long been attracted to the debate of surveillance, both on the theoretical and practical levels. With knowledge of these debates, interior design academics and educators can begin to envision the role of the discipline in the realm of surveillance and, in particular, the social dimension of electronic surveillance.

Beyond the Panopticon Model

To begin the inquiry into academic theoretical positions, one needs to travel back in time and examine the historical roots of the debate. The technologically dependent translation of the notion of surveillance is built on ideas developed centuries ago. British philosopher and social reformer Jeremy Bentham proposed the early disciplinary model of panoptic surveillance, called *panopticon*, in the 1790s. Perceived as a way to correct abnormal behaviors, such as that of inmates in prisons, Bentham’s panopticon has physical manifestations, as it can take the form of a building with a central tower from which surveillance can be enforced continuously (see Haw, 2005). The panopticon model brings to the forefront the complex relationships and implications of what it mean to be under surveillance.

Michel Foucault, a French philosopher writing in 1975, pushed Bentham’s ideas further by emphasizing the social and political dimensions of panoptic surveillance. Foucault described the panopticon as a laboratory of power, one that “induces in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power” (Foucault, 1975/1977, p. 201). Highlighting the transformative potential of surveillance, Foucault (1975/1977) pointed to the power of “the gaze,” the constant monitoring and overseeing of all actions and behaviors.

Bentham’s *panopticon* and Foucault’s thesis of surveillance as power relationships are still guiding critical discourses on electronic surveillance as a means toward security (Yar, 2003). Contemporary criticism, however, of the panoptic paradigm includes the fact that it is no longer relevant in today’s electronic surveillance models. Vaidhyanathan (2008) proposes that at
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Reconceptualizing Surveillance

Directions into how to expand the approach to the problems surrounding the social dimension of electronic surveillance came as early as the 1970s, by scholars like geographer Yi-Fu Tuan. In his book, *Landscapes of Fear*, Tuan (1979) called for a re-conception of what fear and threat could mean. He states: “Anxiety drives us to seek security, or, on the contrary, adventure—that is, we turn curious. The study of fear is therefore not limited to the study of withdrawal and retrenchment; at least implicitly, it also seeks to understand growth, daring, and adventure” (p. 10). Reconceiving surveillance as a means for growth and adventure can be a start in interior design’s attempts to participate in the dialogue about redefining the scope and use of electronic surveillance systems.

Fields like international relations have also called for a further development of the meaning of security, one that extends beyond simple descriptive definitions or a conceptual analysis that focuses on answering questions like “Security for whom?” “How much security?” or “At what cost?” Instead, proposals argue for the meaning to become a signifier that also looks at how security relates to nature, other human beings, and to the self. These discourses are also grounded in exploring how security orders social relations, arguing that such inquiry is more sophisticated than the one before it (Huysmans, 1998). By digging deeper into the investigation of the meaning of security, the design fields can broaden its responses as well as set up a different agenda by which to approach surveillance—one in which electronic surveillance becomes a player in questioning how people relate to each other and the role the built environment plays in the process.

Building on Interdisciplinary Collaborations

Presently, there is a major directional shift in how electronic surveillance could be perceived. This shift entails electronic surveillance’s inclusion in “community informatics,” “a multidisciplinary field for the investigation and development of the social and cultural factors shaping the development and diffusion of new
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Information and communication technologies (ICTs) and its effects upon community development, regeneration, and sustainability” (Keeble & Loader, 2001, p. 3). In their book Community Informatics: Shaping Computer-Mediated Social Relations, Keeble and Loader (2001) point to the experimental nature of these efforts and their potential “for fostering social cohesion, strengthening neighborhood ties, overcoming cultural isolation and combating social exclusion and deprivation” (p. 1). Keeble and Loader’s premise is that computer-mediated social relations can be the conduit through which new forms of community structures and culture can evolve. Bringing together community activists, webmasters, and academics from fields like sociology and computer science, and community informatics challenges the interior design field to consider the role it can play at a time when space is compressed and social relations are greatly constructed through digital and electronic means.

Mann (2004), with a background in electrical and computer engineering, proposed new terms to help guide ventures into these new territories: sous-veillance, which means watching from below and explores what happens when cameras move to eye level and equi-veillance, which shifts the equilibrium between surveillance and sousveillance through wearable devices that can be used by everyday people. A distinguishing factor between the two approaches is that surveillance is architecture centered (cameras are mounted on structures), whereas sousveillance is human centered (cameras are carried or worn by people). As the design examples that follow show, surveillance and sousveillance can be bridged with interactive systems such as those that result from the paradigm of surveillance as a connecting mechanism. Interior design, a human-centered field, can push these inquiries even further by, exploring ways through which cameras and video systems can creatively engage the social dimension.

Design/Pedagogical Responses

Apart from academics, the debate surrounding electronic surveillance has prompted designers, artists, and educators to respond with innovative uses of camera and video systems. By approaching electronic surveillance not as a means of control but as a medium for connecting people to people as well as people to the environment, or as “a connecting mechanism,” these endeavors invited those present to interact and engage with each other, the systems’ operators, and the environment.

The architecture and design firm Diller+Scofidio celebrated the opportunities afforded through the re-conception of electromechanical parts of surveillance systems, like the cameras and video monitors, in the Brasserie. In this eatery, cameras and video monitors are employed in an unconventional way, turning them into the bar’s decorative highlight, giving cameras and monitors space and time to function. In particular, a video camera captures images of customers as they enter the venue. These are then displayed on monitors over the bar (Betsky, 2000). In this design, the surveillance system becomes an integral part of the design scheme—by making cameras and video monitors highly visible, Diller+Scofidio turned these pieces of equipment from mere objects to symbolic manifestations. By redefining how cameras and monitors are used to take advantage of the physical and social dimensions, Diller+Scofidio created a forum for engagement, one through which interactions between people and cameras and between people present can begin to happen. It should be noted, however, that privacy concerns still exist, as tenants have no option as to whether their image will be broadcasted or not.

Art also provides several examples of how the social dimension of surveillance systems can be engaged by designers. Wodiczko (1999), an artist, took advantage of videos and employed cameras as a communication instrument for city strangers. Through two screens, the “stranger” expresses herself/himself and attracts passersby to converse. In Wodiczko’s work, cameras are there to tell a story and to foster a dialogue that raises awareness about issues that commonly divide people. Building on Wodiczko’s idea of cameras as storytellers can set the stage for an alternative approach to the problem of security, which in a sense redefines human relations and the rules of social order.
Acting groups like the Wooster group use both cameras and videos in their theater settings to engage the social dimension.

In the Netherlands, artist Jill Magid decorated police surveillance cameras with rhinestones to attract attention to them, engaging the social dimension again. She intended to “parody them as cheap, showy emblems of power and realize the extent to which they are mere props in the theater of public space” (Zacks, 2003, p. 38). A similar attempt was undertaken in the classroom by an arts faculty in the United States by Sweeny (2004), whose objective was to sharpen students’ critical thinking about the relationship between surveillance systems and power. Both projects made cameras highly visible, giving them the role of mediators in the public debate.

Acting groups like the Wooster group use both cameras and videos in their theater settings to engage the social dimension. For example, in a play, audience members can be projected onto a screen and partake in the play. Taking advantage of technologically sophisticated and evocative uses of sound, film, and video, the Wooster group is redefining the role of technology in the realm of contemporary theatre and in the process has influenced a generation of theater artists nationally and internationally. The group’s work is unique because it attracts not only the theater-going community but also artists and enthusiasts of many other art forms, such as dance, painting, music, video, and film (see The Wooster Group, n.d.).

An Interior Design Undergraduate Thesis

In the spring of 2006, fourth year students at the University of Minnesota were asked to redesign an existing natural history museum into the new home of the Goldstein Museum of Design. Founded by the Goldstein sisters, the Goldstein Museum is a University museum that promotes the appreciation and interpretation of design within its social, cultural, aesthetic, and historic contexts through exhibitions, research, preservation, and education.

Working at the conceptual level, undergraduate student Jane Strom built upon the museum’s mission to create a design that would showcase the social, economic, political, environmental, technological, religious, cultural forces behind the design of everyday objects. Cameras and video monitors were among the objects that her design celebrated through both practical and aesthetic means. In the museum’s entrance lobby, cameras capture images of those entering and project them onto screens that surround the reception desk.

The system is interactive and is used to both secure the building as well as engage the visitor. Computer monitors enable patrons to connect with the cameras and use them to photograph themselves and post their pictures onto the screens, share their impressions of the museum collections, or explore/survey museum galleries and spaces. In this way, museum visitors can get to know other patrons of the building as well as the facility itself.

Conceiving of cameras as elements that can connect people to people and people to the environment, this design highlights the cameras’ potential to be used in a positive way, as a means for mediating and fostering connections among strangers. Similarly, the enlarged video monitors take the form of a swirling banner, becoming an artistic commentary that is created on-site and that can be transformed with each visitor of the space. This approach is a far cry from the typical use of cameras and video monitors, which are most often hidden pieces of equipment. By bringing them to the foreground, Strom provides the setting for the public to understand the potential behind these objects, meeting the museum’s mission and setting a forum for connections to take place.

Summary and Closing Comments

This paper reviewed the literature on electronic surveillance from a multidisciplinary perspective, spanning fields like design, sociology, geography, and engineering. The analysis brought to light a set of discrepancies about how surveillance is conceived, perceived, and practiced. Debates around electronic surveillance revealed its disconnect from the social dimension (the users of an environment) and its ties to
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With communication as a base, design can contribute to a reevaluation of the values that underlie societal responses to the issue of security and people can start to ask: What is it that we are afraid of? How else can our fear be handled?

feelings of fear, being under control, loss of privacy, discrimination, inequality, and cultural/gender insensitivity. By entrusting surveillance to technology and emphasizing solutions where technology can take over, the physical and social dimensions, so strongly advocated by Newman and CPTED models, are currently downplayed. As outlined above, this leaves out considerations about how the technology operates, who monitors it, how it is actually used, and the implications it has on the well-being of users.

From the panopticon to the nonopticon and from sousveillance to community informatics, academics have called for more explorations of how electronic surveillance can engage with the social dimension and begin to act as what this paper calls “a connecting mechanism”—as a means to connect people to people as well as people to the environment. Artists, designers, and educators pushed the boundaries by using cameras and videos to foster connections and challenge the status quo. Such a reconceptualization of surveillance as a means toward security sets the ground for a rethinking of what crime, threat, and fear mean and from where they originate. Through the paradigm of surveillance as a connecting mechanism, cameras and video monitors become ways by which people present can get to know more about each other as well as the environments they are in. Fostering communication among different parties, be those patrons of a restaurant, street passersby, students in a classroom, or museum visitors, this paradigm allows communication and connections to take place. With communication as a base, design can contribute to a reevaluation of the values that underlie societal responses to the issue of security and people can start to ask: What is it that we are afraid of? How else can our fear be handled?

Engaging in this conversation is especially important at a time when security is perceived as controlling everything from private homes to streets and personal data and when security methods can be anything from facial recognition to racial profiling. Interior designers who are cognizant of how electronic surveillance relates to interior design can begin to explore ways to bring the humanity of their constituents back into the picture, balancing the need for security with the potential for connections to take place. Such connections can occur in and across space and time, in person or through digitally mediated means. With an approach that strengthens the social dimension of electronic surveillance schemes, users are no longer passive objects in the system but active agents that engage with both the cameras and the system operators as well as with each other. In the process, the learning that occurs can lead to a redefinition of what security means and how it can be accomplished.

Inherent in this discussion is the premise that the notions of security and surveillance are integral to the interior design profession. This paper advocates expanding the curriculum, where applicable, to touch on technological means of achieving security, such as surveillance systems that involve cameras and videos. Being more knowledgeable on this topic will enable interior design academics, students, and practitioners to constructively participate in current debates on all levels—theoretically, practically, and pedagogically.

Among the steps that can help expand interior designers’ contributions to this arena are (1) including surveillance among the terminology/understandings expected of interior designers in the Council for Interior Design Accreditation (CIDA) Accreditation Standards and (2) including security in the earlier stages of the design process, thereby increasing the potential for creative and conceptual solutions that use cameras and videos in unconventional manners—challenging the status quo while engaging the social dimension.

Currently, the CIDA standards, which help frame the educational focus of all accredited interior design institutions, do not include the term surveillance. Furthermore, CIDA refers to “security systems” under the standard for Building Systems and Interior Materials (Standard 6), directing that “students use appropriate materials and products.” Placing security under phases typically carried out with the use of consultants sends the signal that security is disassociated from the conceptual stages of the design process,
Responding to the complex nature of security is largely dependent on design educators devoting more time and attention to security and surveillance. This implies the development of exercises, pedagogies, and curricula that address the social dimension and impart an understanding of people’s needs, concerns, and fears while exploring how those can be bridged with the physical and technological dimensions. Examples include (1) introducing electronic surveillance in studio projects that involve large, open-to-the-public buildings, like office buildings, health-care facilities, schools, museums, and retail enterprises, and (2) devising ways to bring the social dimension and understanding of users’ needs, fears, and concerns into the overall design solution. Further possibilities exist that collaborations with other disciplines can make possible. For example, joint classes or workshops with engineers can open up new avenues to begin a dialogue around what security means.

The purpose of this paper was to review the literature on how electronic surveillance is conceived, perceived, and practiced and, based on that, to set the stage for a dialogue among interior design educators and practitioners. This dialogue can explore the opportunities tied to a greater involvement by interior designers in the electronic realms of security and surveillance—particularly as they relate to strengthening the social dimension of electronic surveillance. The proposition to conceive of surveillance as a connecting mechanism is explorative, and therefore the study does not intend to provide answers but, instead, to start a dialogue.

Since the idea of surveillance as a connecting mechanism has not been tested, limitations abound and implications are yet unknown, implications are unknown. Possible avenues to be explored include testing whether electronic surveillance systems that engage the user are reliable, whether they save time and energy, reduce crime and fear, increase the feeling of safety, and improve quality of life. More research on how engineers operate and the factors/parameters taken into consideration when designing electronic surveillance systems will also help designers to better understand the decision making that goes into where/how cameras are placed to secure a building. A better understanding of how electronic surveillance impacts men and women from different cultural backgrounds, abilities, ages, and socioeconomic levels will also enable the development of more sophisticated models and design responses. With greater involvement by interior designers with an emphasis on the social dimension of electronic surveillance the field will be better prepared to meet its mission of protecting the health, safety and welfare of the public.

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