

Surveillance and Inequality (eds. Monahan and Fisher) http://www.surveillance-and-society.org

Editorial: Surveillance and Inequality*

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Introduction

Many domains of social life are being transfigured by new technologies of identification, monitoring, tracking, data analysis, and control. The lived experiences of people subjected to surveillance, however, can vary widely along lines of race, class, gender, sexual orientation, age, and nationality. This can be seen with the enforcement of different types of mobilities for different categories of people, whether at borders, on city streets, or on the Internet. It can also be observed with the increasingly invasive monitoring and disciplining of those accessing public services, such as welfare, public education, or healthcare, especially in the U.S. It can be perceived in security-screening and police-profiling practices, which continue to rely upon racial markers of "risk." Or inequality can be found in the uneven treatment of individuals by insurance providers, credit agencies, service centers, or other commercial entities. Regardless of the domain, new surveillance systems often amplify existing social inequalities and reproduce regimes of control and/or exclusion of marginalized groups in societies.

For this special issue on "surveillance and inequality," we were especially interested in soliciting research papers that address the differential effects of surveillance upon marginalized and privileged social groups. Whereas surveillance studies inquiry often begins with technology as a starting point for analysis, we sought to balance this approach by encouraging scholars to start with descriptions of power relations in any social settings and then move to illustrate the role of surveillance technologies or practices in the regulation of those settings. We further encouraged contributions that theorize the relationship of the political economy to surveillance and inequality, whether by attending to globalization processes, neoliberal policies, or military operations. Additionally, we were quite interested in papers investigating the *empowering potential* of surveillance systems to mitigate social inequalities. Although not all of these interests – on the part of

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the guest editors – find representation in the articles selected for publication, each of the articles do attend in some explicit way to the messy intersection of surveillance practices and social inequalities.

Conceptual Overview

As a starting point for this line of inquiry, we draw upon theoretical insights from the field of science and technology studies (STS) to problematize the relationships among technological systems, design processes, and social relations. First, we understand technologies as being socially constructed, meaning that they are inherently social creations that cannot be separated from their contexts of design or use (Bijker, Hughes, & Pinch, 1987; Bijker & Law, 1992). Instead of being exogenous tools that can be discretely applied to social problems, technologies are thoroughly embedded in social practices, institutions, and materialities (Pfaffenberger, 1992; Bowker & Star, 1999; Monahan, 2005). As such, while there are definite constraints upon technological possibilities, neither technological designs nor uses are ever predetermined, evolutionary, or obvious. This is an important point for the study of surveillance because – at least in popular representations - surveillance systems are presented as being inevitable developments that may threaten to impinge upon individual privacy but are nonetheless seen as necessary tools, on some level, for providing security (Monahan, 2006b). Instead of taking such "truths" as given, our social constructivist perspective starts with the assumption that all technologies are contingent and their meanings indeterminate, or at least under-determined, necessitating empirical analysis to interrogate surveillance technologies in specific social contexts.

Building upon the work of Langdon Winner (1986) and others (e.g., Hess, 1995; Sclove, 1995; Lessig, 1999), we add to this constructivist framework a recognition of the politics of technologies. By saying that technologies possess a political dimension, we mean that power relations are engendered by them, that much like legislation they are productive of certain social and normative orders. Surveillance technologies, therefore, possess degrees of agency such that they do not simply uncover pre-existing truths but actively contribute to the creation of certain truth regimes (whether about innocence or guilt, trustworthiness or suspiciousness, value or liability, etc.). We perceive technologies not as neutral tools, but instead as agents or as social structures in their own right. This should not be read as technological determinism. Technologies are negotiated and appropriated on a daily basis, and their meanings and political forces are in constant flux. Just as with other formal and informal social norms, however, technologies are repeatedly tested and sanctions are imposed upon those who transgress the norms asserted by them.

Stephen Graham and Simon Marvin (2001: 5) present a compelling example of this with the case of a woman who was hit and killed when crossing a highway to get to work at a mall on the periphery of Buffalo, New York. Because the mall was designed to cater to relatively affluent shoppers and not lower-income employees, the public bus that this woman relied upon to commute to work did not go all the way to the mall, which compelled the woman to try to cross a highway that was obviously not intended for pedestrian activity. In this case, the politics of the highway – coupled with the

exclusionary neoliberal logics of the mall and public transportation system – actively and violently discriminated against this woman, causing her death. Recognizing this "politics" does not confine one to a belief in technological determinism. After all, it is highly likely that this woman successfully defied those politics on many previous occasions. Instead, focusing on the politics of technologies enriches analysis in a more empirically accurate way because it affords necessary attention to the oftentimes unequal social ramifications and restrictions introduced by sociotechnical systems.

Neoliberalism is the contemporary ideological and political context within which the articles in this special issue are situated. By the term neoliberalism, we refer to the privatization of public programs and spaces, the re-scripting of citizens as consumers, and the corresponding increase in social control mechanisms, especially for those who do not neatly fit into the category of consumer-citizen (Monahan, 2006a; Monahan & Wall, Surveillance often operates as a mechanism for the 2007: Fisher, forthcoming). management and exclusion of individuals within neoliberal regimes. This can be detected with increases in the surveillance and control of those accessing public services (Campbell, 2006; Eubanks, 2006; Gilliom, 2001; Willse, in this issue); of refugees, immigrants, and other vulnerable populations crossing borders (van der Ploeg, 2005; Pallitto, in this issue; Wiebe, in this issue); of homeless people seeking shelter within public spaces that are being transformed into commercial or tourist zones (Doherty et al., in this issue; Kanashiro, in this issue); or of elderly or young populations who are constructed as being vulnerable (or dangerous, especially in the case of urban youth) and in need of technical systems of protection or intervention (Kupchik & Monahan, 2006; Monahan, 2006c; Kenner, in this issue). Rather than seeing contemporary surveillance systems as providing security or threatening individual privacy, it may be more accurate and productive to view them as actualizing a micropolitics of social control within increasingly privatized and individualized public domains.

Surveillance studies scholars have been grappling with issues of inequality for some time. Research on closed circuit television (CCTV) surveillance has led the way by documenting the tendency of control room operators to single out black people for tracking or women for voyeurism or harassment (Norris & Armstrong, 1999; Koskela, 2000, 2002; Goold, 2004). Recently, the robust concept of social sorting has been developed to analyze the unequal deployment and effects of surveillance systems (Lyon, 2003, 2007). Social sorting indicates the tendency for surveillance systems to operate as mechanisms for societal differentiation. In other words, surveillance systems assist with discerning or actively constructing differences among populations and then regulating those populations according to their assigned status (Gandy, 2006; Haggerty & Ericson, Most often, social sorting refers to the differential application of the same 2006).² surveillance apparatuses. For example, through the use of preferred shopper programs, some people are given discounts while others are not; through the use of real-time systems for the regulation of automobile traffic, people who can afford to pay higher rates may stay on toll roads while others are forced to leave; through the use of packet-routing hardware and software, preferred Internet users may have access to greater bandwidth than others; and so on. An interesting dimension of social sorting is that it is often

² In his classic text, *The Panoptic Sort*, Oscar Gandy (1993) identified early on the discriminatory valence of surveillance-based sorting.

invisible (Lyon, 2001; Marx, 2002), leading to a normalization of differential access, mobility, and treatment.

Another articulation of differential surveillance is what we call marginalizing surveillance. By this term, we refer to the creation or enforcement of conditions of marginality through the application of different surveillance systems for different populations. So whereas the relatively affluent may submit to all kinds of market research surveillance, people accessing social services such as welfare or food stamps submit to completely different electronic systems that facilitate the invasive scrutiny of their purchases and discipline of their behavior (Gilliom, 2001; Eubanks, 2006). Similarly, although most workplaces now monitor employees and their communications in some fashion (Ball, 2001; EPIC, 2007), invasive drug-testing and real-time location tracking is reserved largely for workers with the lowest status and income levels (Staples, 2000; Campbell, 2004; Fisher, 2006; Lyon, 2006).³ Clearly, social sorting can have marginalizing effects, and marginalizing surveillance can lead to the unequal and unfair sorting of populations. Nonetheless, it is analytically important to realize that the socalled democratization of surveillance – whereby everyone is now said to be exposed to rampant surveillance – is deeply encoded with inequalities in the application, effects, and types of surveillance occurring.

Some may feel that a focus on inequality requires justification. Although the discipline of sociology – and arguably the social sciences more generally – emerged in the nineteenth and early twentieth centuries out of a direct concern for the social inequalities catalyzed by industrialization, the post-World War II scientistic transformation of the social sciences has had a conservative effect on research, subsequently marginalizing explicitly progressive or "interested" research programs (Restivo, 1988; Hess, 1997). As Mary Romero and Eric Margolis explain, in the mid-twentieth century, "American sociologists vigorously attempted to reduce the issues of inequality to social stratification; and then they sought to demonstrate the inevitability – in fact, the benefits – of stratification in any advanced technological social system" (Romero & Margolis, 2005: 1).

Whereas the concept of stratification may subtly normalize, because it fails to challenge, a mythical belief in meritocracy in capitalist societies, the more recent scholarly turn to analyses of power (in critical race theory, gender studies, postcolonial studies, science and technology studies, etc.) refocuses attention on ascribed social status, conflict, and discrimination. It is important to note that the all-to-common knee-jerk reaction to dismiss normative research as "activist," "political," or "biased" betrays a belief that other, differently-engaged research is somehow neutral and apolitical; it betrays a fallacious assumption, in other words, that value-free or neutral research is possible in the first place (Hubbard, 1988; Harding, 1991).⁴

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³ Exceptions might include drug testing of airline pilots or tracking of emergency rescue workers, but the numbers of these employees are relatively small compared to those of employees in low-wage service sector jobs, for instance.

⁴ We should flag the fact that this assumption effectively insulates and supports the status quo of existing funding priorities, which disproportionately serve military and industry interests over social or environmental ones.

Through empirical research, researchers in the field of science and technology studies have persuasively destabilized myths about the objectivity and neutrality of scientific knowledge and practice (see for example Knorr-Cetina & Mulkay, 1983; Pickering, 1992; Latour & Woolgar, 1986; Fortun & Bernstein, 1998; Cole, 2001). Still, in spite of widespread agreement in STS about the social construction of science, a rift remains between socially engaged and socially disengaged scholars. Proposals for a "reconstructivist agenda" in STS offer a fruitful way for bridging this divide, primarily by redirecting attention to the political problem of "undone science" and calling for progressively oriented research into areas like alternative health, green chemistry, ecological sustainability, multimodal transportation, and so on (Woodhouse et al., 2002; Hess, 2007). Research on "enabling" or "empowering" surveillance would fit well within this frame (Koskela, 2004; Murakami Wood, 2007). In this reconstructivist vein, scholars less interested in advocacy could pursue questions about why certain research programs flourish while others dwindle, and others could identify specific areas of undone science most likely to solve pressing social problems. Or, as is the aim of this special issue, one can intentionally target research areas that reveal social tensions or needs, and in the process of rigorous investigation, advance knowledge in ways that could open up possibilities for intervention. Such an approach could be seen as an intervention in its own right because it alters the field of inquiry, contributes to the empirical record, and invites others to critique, discuss, and advance collective understandings of inequality, power, and knowledge.

Overview of the Special Issue

The articles in this issue begin with Craig Willse's critical investigation of information systems for the management and control of homeless populations in the U.S. classificatory scheme generated and enforced by these systems does not simply discipline bodies but rather produces a biopolitical regime for the abstract control of populations. Homeless shelters transform themselves into data collection agencies to ensure access to federal funds, and homeless people submit to the conversion of their lived experiences into abstract "universal data elements" in exchange for minimal access to the services they require for survival. Through analysis of his rich data about homeless management information systems, Willse extends the conversation about social sorting by emphasizing the need to move beyond individuals or individual privacy as the units of analysis: "The consequence, then, of surveillance studies remaining at a disciplinary register is not that its analysis is wrong, but that it can't fully account for the productive operations of power at play when it assumes an individual subject as the object of intervention" (Willse, in this issue). This has implications, as well, for rethinking the utility and politics of concepts in widespread use in surveillance studies, such that of the "data double" (Haggerty & Ericson, 2000), which Willse reads as lingering too close to individual subjects to account for biopolitical operations of power beyond disciplinary frames of reference that have gained hegemony in the field.

Alison Kenner's article, "Securing the Elderly Body," tackles the problematics of surveillance systems for care of the elderly, especially of those with dementia, in the U.S. Because many of the systems under development are spin-offs from security industries

and/or are designed with the interests of caregivers rather than the elderly in mind, they threaten to reduce the autonomy of the elderly rather than empower them to "age in place." Kenner explains:

These surveillance systems for the elderly go further than simply tracking, recording, and transmitting data on the movement of bodies. Beyond helping to diagnose and understand behavioral patterns, these surveillance systems are being deployed to *control* and *manage* elderly people with dementia while they age in place. (Kenner, in this issue).

Given inadequate social and institutional care options for elderly people, such systems are quickly gaining support in care-giving communities, but the long-term implications of their use are little understood. Kenner argues that such systems will probably do little to disrupt rampant ageism in American society or to contest the structural conditions that contribute to the vulnerability of the elderly in the first place.

Marta Kanashiro's article, "Surveillance cameras in Brazil," offers what is perhaps the first sustained, empirical treatment of surveillance and security regimes in that country. Drawing upon legal documents and ethnographic fieldwork, she paints a vivid picture of the gradual securitization of public life and public space, particularly in São Paulo. The escalation of privatized security corresponds with the decline of the military dictatorship in Brazil in the early to mid-1980s. Kanashiro relates: "It is only after the opening up to democracy that discourses on the inefficiency of the State in providing public security, as well as public feelings of fear and insecurity and increasing violence and crime, could become arguments for the use of [surveillance] cameras" (Kanashiro, in this issue). Security is transformed in this context into a commodity for purchase, for those who can afford it; meanwhile. surveillance cameras become illicit goods smuggled into the country and sold on the black market in order for people to avoid mandatory import taxes. Through analysis of the deployment of cameras in São Paulo's Parque da Luz in 1999, Kanashiro reveals how the surveillance system is used for the exclusion of non-consumers and the gentrification of the area, further marginalizing the most needy and insecure populations. Kanashiro comments on the normalizing politics of these systems: "in spite of the introjection of the idea of visibility, it is actually the invisibility of the individual which is promoted in the flow of passers-by. A person's attitudes are only under discussion when he/she does something that stands out from this flow" (Kanashiro, in this issue).

Joe Doherty and colleagues echo this theme of socio-spatial exclusion in their remarkable comparative analysis of the regulation of homelessness in seven European cities. They similarly find the rescripting of public spaces for the support of consumptive activities and the exclusion of those who deviate from that norm. Although these researchers find significant cultural variation in the regulation of homelessness, they perceive a trend toward *softer* mechanisms of discipline, such that "[r]estricted access to public space for homeless people is then rarely absolute, more commonly it is conditional, for example, on time of day or intended activity" (Doherty et al., in this issue), It is through the reclassifying of public spaces as spaces of consumption that even countries offering the most legal rights for the homeless are shutting down spaces for the homeless to meet their basic needs. Germany offers a perfect example of this because even though "prohibitions"

against begging are regarded as 'unconstitutional' and 'legally invalid'" (Doherty et al., in this issue), the introduction of stores into train stations has the effect of re-classifying such spaces as quasi-public or private, thereby justifying the removal of homeless people. Such changes threaten the freedom and lives of the homeless, while attenuating the multiplicity and diversity of public space for everyone.

Robert Pallitto and Josiah Heyman's article, "Theorizing Cross-Border Mobility," focuses on layered inequalities produced by technological practices at U.S. border zones. Rather than being geographically discreet, border inspections have proliferated throughout space, most obviously linked to and co-located with transportation systems. According to Pallitto and Heyman, the inequalities associated with "the securitization of movement" manifest in three overlapping dimensions: inequalities of rights, risk, and movement. First, although there exist "procedural" rights affording protections for all people crossing borders, whether citizens or non-citizens, these are effectively suspended in practice. especially for non-citizens. Second, classifications of "risk" tend to discriminate against supposedly higher-risk individuals by subjecting them to greater scrutiny, thereby increasing the probability that more violations will be found for so-called risky groups because – in part – they are being disproportionately singled out. In other words, risk classifications have a way of becoming self-fulfilling prophecies. Third, social sorting at border inspection locations allows for the fast-tracking and slow-tracking of people in ways that may codify and reproduce class, race, sex, and other biases. This then threatens to ramify negatively back upon subject positions in their constant process of reconstitution: "subjectivity, however conceptualized, is often shaped, negotiated and contested at border-crossing sites, and as a result it is important to consider those processes as we begin to theorize cross-border mobilities" (Pallitto and Heyman, in this issue).

This special issue on surveillance and inequality concludes with a short opinion piece by Sarah Wiebe about state screening processes for individuals desiring Canadian citizenship. She explains that criteria focusing on potential citizens' threat to public health or drain upon health services effectively discriminates against those seen as less productive and therefore less valuable to the country. As a result, biases are embedded in official policies, leading to the unequal classification and subsequent treatment of individuals.

We invite other researchers to engage these provocative pieces and continue investigation into differential surveillance in all its forms.

References

Ball, K. (2001) Situating Workplace Surveillance: Ethics and Computer Based Performance Monitoring. *Ethics and Information Technology* 3 (3):209-221.

Bijker, W. E., Thomas Hughes, and Trevor Pinch, ed. (1987) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. Cambridge, MA: The MIT Press.

- Bijker, W. E., and J. Law. (1992) Shaping Technology / Building Society: Studies in Sociotechnical Change. Edited by C. Bijker, and Pinch, Inside Technology. Cambridge, MA: MIT Press.
- Bowker, G. C., and Susan Leigh Star. (1999) Sorting Things Out: Classification and Its Consequences. Cambridge, MA: MIT Press.
- Campbell, N.D. (2004) Technologies of Suspicion: Coercion and Compassion in Post-disciplinary Surveillance Regimes. *Surveillance & Society* 2 (1):78-92.
- Campbell, N.D. (2006) Everyday Insecurities: The Micro-behavioral Politics of Intrusive Surveillance. In T. Monahan (ed.) *Surveillance and Security: Technological Politics and Power in Everyday Life*. New York: Routledge, 57-75.
- Cole, S. A. (2001) Suspect Identities: A History of Fingerprinting and Criminal Identification. Cambridge, MA: Harvard University Press.
- EPIC (Electronic Privacy Information Center). (2007) *Workplace Privacy* [Web site, cited January 2008]. Available from http://epic.org/privacy/workplace/.
- Eubanks, V. (2006) Technologies of Citizenship: Surveillance and Political Learning in the Welfare System. In T. Monahan (ed.) *Surveillance and Security: Technological Politics and Power in Everyday Life*. New York: Routledge, 89-107.
- Fisher, J. A. (2006) Indoor Positioning and Digital Management: Emerging Surveillance Regimes in Hospitals. In T. Monahan (ed.) *Surveillance and Security: Technological Politics and Power in Everyday Life*. New York: Routledge, 77-88.
- Fisher, J. A. (forthcoming) *Medical Research for Hire: The Political Economy of Pharmaceutical Clinical Trials.* New Brunswick, N.J: Rutgers University Press.
- Fortun, M., and H. J. Bernstein. (1998) Muddling Through: Pursuing Science and Truths in the 21st Century. Washington, DC: Counterpoint.
- Gandy Jr., O. H. (1993) The Panoptic Sort: A Political Economy of Personal Information. Boulder, CO: Westview.
- Gandy Jr., O. H. (2006) Data Mining, Surveillance, and Discrimination in the Post-9/11 Environment. In K.
 D. Haggerty and R. V. Ericson (ed.) The New Politics of Surveillance and Visibility. Toronto: University of Toronto Press, 363-384.
- Gilliom, J. (2001) Overseers of the Poor: Surveillance, Resistance, and the Limits of Privacy. Chicago: University of Chicago Press.
- Goold, B. J. (2004) CCTV and Policing: Public Area Surveillance and Police Practices in Britain. Oxford: Oxford University Press.
- Graham, S., and S. Marvin. (2001) Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition. New York: Routledge.
- Haggerty, K. D., and R. V. Ericson. (2000) The Surveillant Assemblage. *British Journal of Sociology* 51 (4):605-622.
- Haggerty, K. D., and R. V. Ericson. (2006) The New Politics of Surveillance and Visibility. In K. D. Haggerty and R. V. Ericson (ed.) The New Politics of Surveillance and Visibility. Toronto: University of Toronto Press, 3-25.

- Harding, S. G. (1991) Whose Science? Whose Knowledge?: Thinking from Women's Lives. Ithaca, N.Y.: Cornell University Press.
- Hess, D. J. (1995) Science & Technology in a Multicultural World: The Cultural Politics of Facts & Artifacts. New York: Columbia University Press.
- Hess, D. J. (1997) Science Studies: An Advanced Introduction. New York: New York University Press.
- Hess, D. J. (2007) Alternative Pathways in Science and Industry: Activism, Innovation, and the Environment in an Era of Globalization. Cambridge, MA: MIT Press.
- Hubbard, R. (1988) Science, Facts, and Feminism. Hypatia 3 (1):5-17.
- Knorr-Cetina, K. D., and David Mulkay, ed. (1983) Science Observed: Perspectives on the Social Studies of Science. Beverly Hills: Sage.
- Koskela, H. (2000) 'The Gaze without Eyes': Video-surveillance and the Changing Nature of Urban Space. *Progress in Human Geography* 24 (2):243-265.
- Koskela, H. (2002) Video Surveillance, Gender, and the Safety of Public Urban Space: "Peeping Tom" goes High Tech? *Urban Geography* 23 (3):257-278.
- Koskela, H. (2004) Webcams, TV Shows and Mobile Phones: Empowering Exhibitionism. *Surveillance & Society* 2 (2/3):199-215.
- Kupchik, A., and T. Monahan. (2006) The New American School: Preparation for Post-Industrial Discipline. *British Journal of Sociology of Education* 27 (5):617-631.
- Latour, B., and Steve Woolgar. (1986) *Laboratory Life: The Construction of Scientific Facts*. Princeton, NJ: Princeton University Press.
- Lessig, L. (1999) Code: And Other Laws of Cyberspace. New York: Basic Books.
- Lyon, D. (2001) Surveillance Society: Monitoring Everyday Life. Buckingham, England: Open University Press
- Lyon, D. (ed.) (2003) Surveillance as Social Sorting: Privacy, Risk, and Digital Discrimination. New York: Routledge.
- Lyon, D. (2006) Why Where You are Matters: Mundane Mobilities, Transparent Technologies, and Digital Discrimination. In T. Monahan (ed.) *Surveillance and Security: Technological Politics and Power in Everyday Life*. New York: Routledge, 209-224.
- Lyon, D. (2007) Surveillance Studies: An Overview. Cambridge: Polity Press.
- Marx, G. T. (2002) What's New About the "New Surveillance"? Classifying for Change and Continuity. *Surveillance & Society* 1 (1):9-29.
- Monahan, T. (2005) Globalization, Technological Change, and Public Education. New York: Routledge.
- Monahan, T. (2006a) Preface. In T. Monahan (ed.) Surveillance and Security: Technological Politics and Power in Everyday Life. New York: Routledge, ix-xi.
- Monahan, T. (2006b) Questioning Surveillance and Security. In T. Monahan (ed.) Surveillance and Security: Technological Politics and Power in Everyday Life. New York: Routledge, 1-23.

- Monahan, T. (2006c) The Surveillance Curriculum: Risk Management and Social Control in the Neoliberal School. In T. Monahan (ed.) *Surveillance and Security: Technological Politics and Power in Everyday Life*. New York: Routledge, 109-124.
- Monahan, T., and T. Wall. (2007) Somatic Surveillance: Corporeal Control through Information Networks. Surveillance & Society 4 (3):154-173.
- Murakami Wood, D. (2007) Pervasive Surveillance: Enabling Environments or Embedding Inequalities? Paper read at Workshop on Surveillance and Inequality, March 16-18, at Arizona State University.
- Norris, C., and G. Armstrong. (1999) The Maximum Surveillance Society: The Rise of CCTV. Oxford: Berg.
- Pfaffenberger, B. (1992) Technological Dramas. Science, Technology, and Human Values 17 (3):282-312.
- Pickering, A., ed. (1992) Science as Practice and Culture. Chicago: University of Chicago Press.
- Restivo, S. (1988) Modern Science as a Social Problem. Social Problems 35 (3):206-225.
- Romero, M., and E. Margolis. (2005) Introduction. In M. Romero and E. Margolis (ed.) *The Blackwell Companion to Social Inequalities*. Malden, MA: Blackwell, 1-12.
- Sclove, R. E. (1995) Democracy and Technology. New York: The Guilford Press.
- Staples, W. G. (2000) Everyday Surveillance: Vigilance and Visibility in Postmodern Life. Lanham, MD: Rowman & Littlefield Publishers.
- van der Ploeg, I. (2005) *The Machine-Readable Body: Essays on Biometrics and the Informatization of the Body.* Maastricht: Shaker.
- Winner, L. (1986) The Whale and the Reactor: A Search for Limits in an Age of High Technology. Chicago: University of Chicago Press.
- Woodhouse, E., D. Hess, S. Breyman, and B. Martin. (2002) Science Studies and Activism: Possibilities and Problems for Reconstructivist Agendas. *Social Studies of Science* 32 (2):297–319.