

### Torin Monahan

Department of Human & Organizational Development, and Department of Medicine, Vanderbilt University, USA.  
[torin.monahan@vanderbilt.edu](mailto:torin.monahan@vanderbilt.edu)

### David J. Phillips

Faculty of Information, University of Toronto, Canada.  
[davidj.phillips@utoronto.ca](mailto:davidj.phillips@utoronto.ca)

### David Murakami Wood

Surveillance Studies Centre, Queen's University, Canada.  
[dmw@queensu.ca](mailto:dmw@queensu.ca)

This issue of *Surveillance & Society* examines the social implications of contemporary surveillance with a focus on the complexities of empowerment. Our purpose is not to stake a claim or chart a new course, but instead to recognize and encourage a mode of inquiry that has been emerging for some time.

Surveillance is always about power. But following Michel Foucault (1980), power is never simply possessed by one individual or group and wielded over another. Power is better understood as a set of forces that have productive capacities, that are in constant flux, and that manifest in larger assemblages of material, social, and symbolic relationships (Foucault 1978). Rather than simply being a map of connections of disparate elements, such assemblages also include the literary, political, and economic glue that holds those connections in place long enough to yield social truths or scientific facts (Fortun and Bernstein 1998). Therefore, scholars should follow the many disparate links that constitute surveillance practices and posit explanations for how these connections hold the assemblage together. This means attending to the relationships that are produced, which the field has done quite well, and to the ways in which these relationships resist alteration, which is something that scholars are forced to confront when investigating potentials for empowerment.

In the Surveillance Studies literature, there have been significant contributions on social sorting, digital discrimination, privacy invasion, racial profiling, and other mechanisms of unequal treatment (e.g., Gandy 1993; Lyon 2003; Monahan 2008; Regan 1995). In contrast, questions concerning the potential of surveillance for contributing to individual autonomy and dignity, fairness and due process, community cooperation, social equality, and political and cultural visibility have been rare in the field. Does a set of practices count as “surveillance” only if government agencies or agents are violating the rights of denizens? Only if corporations are collecting data on consumers? Only if bosses are spying on workers? Only if conservative political ends are being met? In other words, why should a set of practices count as surveillance if used by one group but not by another?

There may be an understandable predilection in Surveillance Studies of concentrating on institutional actors impinging on the rights and activities of others. After all, as John Gilliom reminds us, the word surveillance connotes domination: “If we think of surveillance as just *watching*, we err, because

surveillance is never really just watching. It's not just vision, but *supervision*. It's not just sight, but *oversight*. Surveillance assumes, advances, and/or creates a relationship of domination" (Gilliom 2010: 205). The question for us is how can it be otherwise? Or, put differently, how might traditionally marginalized groups use surveillance to challenge their positions of marginality? Or, even broader, how can surveillance be designed, employed, and regulated to contribute to democratic practices and/or the social good?

Such questions imply an epistemological position that explicitly rejects simple binaries, such as beliefs that surveillance is inherently negative and opposition to it is inherently positive. Instead, if surveillance is always relational, then the question of whether it is positive or negative depends upon one's position in the system. It depends upon whether one's status and values are being affirmed or undermined. This does not mean that surveillance ceases to be about power relationships. Instead, "empowering surveillance" can be those surveillant practices that favorably alter one's position in larger sociotechnical systems.

### The Uses of Symmetry

The methodological tenet of "symmetry," as advanced by scholars in the sociology of scientific knowledge, is useful for this discussion. Symmetry means that researchers should employ similar explanatory frameworks for similar practices, regardless of which practices are ultimately deemed "scientific" and which "unscientific"—or, for our purposes, which are considered "surveillance" and which are not. In science studies, symmetry acted as an important corrective to previous investigations that held the institution of science as unique and not subject to the same types of analysis applied to other social institutions, such as religion or education (Bloor 1991). Symmetry also directed scholars to include in their analyses sociological explanations for outcomes of scientific controversies, rather than assume that truth claims succeeded if they were validated by nature and that they failed if they were tainted by social bias (Hess 1997). This methodological standpoint, subsequently, invited researchers to study the social construction of science and technology, or the process by which facts and artifacts are created, deployed, and lent meaning. Similarly, if applied to Surveillance Studies, the symmetry principle should push scholars to analyze the "social construction of surveillance," meaning the ways in which surveillance shapes human activities as well as the processes by which surveillance is designed, imbued with values, and negotiated and contested. Additionally, symmetrical analysis should assist scholars in identifying empowering forms of surveillance that might otherwise be ignored.

Taking seriously the social construction of surveillance necessitates a rejection of absolutes. It becomes more difficult to say that some forms of surveillance are "good" and others "bad." Such value judgments depend on one's position in the system, and it should be the task of scholars to try to understand competing positions in a symmetrical and sympathetic fashion. Absent a quick dismissal of certain practices as negative, researchers must perform more rigorous analysis and document the complexity of power dynamics. *Emphatically, this does not mean that scholarship must fall into moral relativism.* If symmetry is pushed far enough, scholarship becomes normative: it reveals asymmetrical power structures and will be interpreted as challenging the status quo, regardless of whether scholars intentionally take a stand on an issue (Scott, Richards, and Martin 1990). The reason for this is that scholars cannot control what their audiences will think, especially not those audiences that feel that they have something to lose by the circulation of the findings. Given that facts generated by social scientists are subject to appropriation and interpretation, just like other scientific facts, this means that truth claims will always acquire normative force, if they are acknowledged at all. For this reason, it makes sense for researchers to be symmetrical, on one hand, and to be explicit about their own normative standpoints and constraints, on the other (Chubin and Restivo 1983; Hess 1997; Woodhouse et al. 2002). It is a political act both to seek out empowerment as a topic of study and to advocate for empowering surveillance. This can also be seen as responsible research practice. Instead of posturing as objective and removed, such reflexivity embraces

the moral economy of scholarship and recognizes the context-dependent place from where claims are produced (Haraway 1988; Harding 1991).

## Beyond Opposition

Empowerment itself has a complex etymology. In its most simple and literal terms, it means to invest or supply with power, in other words it would seem to fit with the more simple conception of power, which we have already rejected, as if power was a simple property. Given that the Foucauldian understanding of power would imply itself that “power” is an outcome of assemblages, what use is a term like “empowerment?” Firstly, empowerment entered the social sciences via the political economic critique of development, and the alternative development movement, and usually describes not a generalized process of investing with power, but a process of leveling, equalizing, and actualizing social justice (Friedmann, 1992). Crucial within this is not simply the notion of justice itself, but the idea of empowerment as a progressive process rather than an end state. As with all progressive social change, it can never be achieved once and for all because the world is dynamic, justice is emergent, and social problems are tenacious. If we accept that technologies and techniques of surveillance can assist with processes of empowerment, the questions then become: empowerment for whom, toward what ends, under which circumstances, and within which structural contexts?

In an oblique way the field of Surveillance Studies has been grappling with these issues for a while, in part by focusing on “counter-surveillance” in which actors with fewer institutional or symbolic resources seek to vitiate the surveillance to which they and others are subjected (Monahan 2010b). Studies of counter-surveillance have followed two paths. The first addresses attempts to thwart, disrupt, or avoid surveillance. John Gilliom’s *Overseers of the Poor*, for instance, shows how women welfare recipients evade bureaucratic surveillance by, among other things, refusing to disclose secondary forms of income they receive in order to make ends meet (Gilliom 2001). The Institute for Applied Autonomy’s iSee project provides maps of “paths of least surveillance” – routes through urban regions that avoid CCTV cameras (Monahan 2010b). At its best, this type of counter-surveillance can be empowering, but usually in a reactive way, by contesting and trying to reduce the forms of surveillance to which people are exposed. This also describes the important legal work done by civil-society organizations (Bennett 2008).

Another strand of counter-surveillance action seeks to embrace and use surveillance practices to counter dominant power. Examples of this include CopWatch programs (Huey, Walby, and Doyle 2006) or the Institute for Applied Autonomy’s (2006) “defensive surveillance” tactics of monitoring police at mass public protests in order to better avoid confrontation (see also Fernandez 2008). As is clear from the articles in this issue, this embrace is problematic. At their worst, counter-surveillance tactics can be willfully ignorant of and insensitive to intersectional forms of oppression, as can be witnessed, for instance, in videos of Steve Mann’s “shooting back” project<sup>1</sup>, where he (a relatively affluent white man) confronts African American women and others working low-income, service sector jobs and questions them about store video surveillance systems, to which the workers are more likely to be the targets than the customers (Monahan 2010b)<sup>2</sup>. At best, they require a subtle and nimble engagement with volatile

<sup>1</sup> <http://wearcam.org/shootingback.html> [accessed November 28, 2010]

<sup>2</sup> Steve Mann and colleagues have labeled these interventions “sousveillance,” or watching from below (Mann, Nolan, and Wellman 2003). While this concept is intriguing, especially for its grassroots overtones, one should exercise great care when presuming to speak on behalf of others, especially if those other people occupy different socio-economic positions or possess radically different race and gender identities. The concept of sousveillance is problematic as well because it privileges the direction of the gaze instead of its effect. Watching from below begins to matter when pressure or control is felt by individuals in positions of higher institutional status, at which point the gaze may still be from below, but the power relationship shifts to one of *control over*, thereby becoming “surveillance.” Of course, power is both dynamic and multi-dimensional, so the ability to surveil people in positions of relatively higher status does not necessarily alter the vulnerability of those watching from below, as any whistleblower can attest.

forms of power. For example, in this issue, Wilson and Serisier examine the ways that new techniques for producing and disseminating video images alter the possibilities for successful activism in complex ways, providing safety and visibility for street protesters, but also provoking greater police violence, and sometimes providing evidence for legal action against the protesters themselves.

If surveillance is to be effectively used to counter power, then the tools of surveillance – data gathering, analytics, and response mechanisms – must be accessible. These tools are embedded in infrastructure – in interlocking and mutually supportive networks of laws, machines, and cultural practices. One of the aims of this special issue is to probe those relations and suggest pathways toward the ethical design of surveillance infrastructures (see Phillips 2005).<sup>3</sup> This approach recognizes that because surveillance is socially constructed, the design of surveillance infrastructures is a contingent and underdetermined process, which means that alternative—and more power-equalizing—designs are possible. The focus on infrastructures is intentional. Whereas technologies function as tools that enable certain practices, infrastructures establish contexts for practice (Bowker and Star 1999).

This brings us to the difficult task of identifying possible criteria for evaluating ethical and/or empowering surveillance. In her article in this volume, Shilton suggests that the design criteria for ethical tools for participatory sensing pay attention to values of local control, participation, transparency, and social justice. Of course, each of these foci provide plenty of opportunity for debate. Where is local? Who is to participate? What is to be transparent to whom? What is justice? Nevertheless, they helpfully structure the debate to attend to normative principles of equality and autonomy.

Design is but one locus of intervention. We must also evaluate use, outcomes, and consequences. Perhaps, as a starting point, criteria for the evaluation of empowering outcomes could be based on demonstrable improvement in the economic, juridical, social or symbolic status of an individual or group that has traditionally been marginalized or oppressed.<sup>4</sup> But these outcomes are never simple; they are always polyvalent. For example, as Mark Andrejevic (2007) argues in his discussion of interactive media, people can eagerly involve themselves with surveillance systems that meet some of their needs and desires but are ultimately disempowering because they enable only ersatz freedom to make consumer choices, not actualize any deep form of political or social empowerment. Two articles in this issue address complex and nuanced notions of use and outcome. Regan and Steeves explore how four different models of empowerment – protest/resistance, social capital, identity/self-presentation, and performance – suggest different normative values in youths’ interaction with social networking sites (SNS). Ellerbrok reveals the dynamics of different kinds of visibility (peer-to-peer, marketing surveillance, regulatory surveillance, and data legacies) on SNS. Each suggests that positive outcomes along one axis, or in the light of one model, may be negative outcomes on another.

## Empowering Surveillance in the World

Surveillance is used by institutions to understand and manage complex environments and populations, from traffic patterns to consumer habits to weather systems. Surveillance can be empowering if it allows a population or a community to better understand itself and its environment, and to call to account those

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<sup>3</sup> This framing was explored first in a 2006 workshop organized by David J. Phillips at the University of Texas, Austin. We expanded upon it in a subsequent 2008 workshop (“The Use of Implants in Ethical Surveillance Infrastructures: Towards a Transdisciplinary Ontology”) organized by Michael Nagenborg, Kirstie Ball, Torin Monahan, David Murakami Wood, and Karsten Weber at the Center for Interdisciplinary Research at Bielefeld University, Germany.

<sup>4</sup> We are grateful to John Gilliom for asserting this position at the workshop on surveillance and empowerment (see Acknowledgments, below). Of course there may be good reasons for wanting to keep certain groups, such as neo-Nazis or other hate groups, from achieving empowerment in these terms. This fact does not diminish the merits of empowering surveillance, but it does point to some of its limitations and the need to complement evaluations with a broader ethical criteria, such as social justice, anti-violence, and tolerance.

who are adversely affecting that environment. For instance, the monitoring of air quality and water pollution, when coupled with alert mechanisms, could function as a form of surveillance of environmental conditions that improves public health, even if the affluent are more likely to benefit from such systems (Monahan and Mokos 2010). Similarly, web interfaces, like Scorecard.org, render information about toxic release inventories accessible so that people can monitor pollution and polluters in their communities and mobilize for polluter accountability and environmental cleanup (Monahan 2010a). But environmental data do not make sense of themselves. Surveillance involves not merely data collection, but creating social meaning from the data, and using that meaning to inform action. Data must be interpreted and that interpretation deployed. Therefore empowering surveillance becomes an exercise in “semiotic democracy” (Phillips 2009). Related to this, Ottinger, in this issue, shows the struggles and negotiations in meaning making of environmental data in three realms – in defining issues, in enforcing laws, and in informing individual choice.<sup>5</sup>

Also in this issue, Skoric *et al* pursue this notion of environmental surveillance and distributed data collection in a very different realm. Their article addresses the conditions and consequences, not of the imposition of norms on individuals by large institutions like states or corporations, nor of individuals and communities monitoring the actions of institutions, but of the enforcement of community norms through public shaming. In this situation, the power to monitor, publicize, or normalize is peer-based, as vigilantes publicize the anti-social habits of litterers and those with egregious parking habits.

Pervasive computing systems also possess potentials for catalyzing social empowerment. Although current technological trajectories would suggest that such computing system would be used to further divide societies or sort populations according to market or security logics, this does not have to be the case. In the spirit of universal design, pervasive computing could de-marginalize the elderly, for instance, by providing an infrastructure to reduce dependencies that diminish autonomy while still supporting dependencies that build social ties. Instead of trying to police the elderly with electronic “wander guards” or pharmaceutical delivery systems, systems that afforded the elderly enhanced mobility and opportunities to selectively communicate with caregivers could build relationships of trust and allow older members of society to age in place (Kenner 2008). This facilitates a co-ownership of place, which Albrecht and Glud address further. Their article in this issue suggests that residents of marginalized communities can use GPS-enabled smartphones to create user-generated maps that visualize their experience of the neighborhood. This makes their experience, their lives, visible in a way useful to themselves, justifying and facilitating their engagement in planning initiatives, and allowing them to persuasively intervene in networks of influence.

Systems that afford critical awareness of one’s exposure to extractive forms of surveillance might also be thought of as empowering. For example, Gregory Donovan has a participatory action research project called MyDigitalFootprint.org that seeks to counter prominent government, civic, and corporate cybersafety campaigns that simplistically encourage parents to monitor and police their children. Donovan explains:

As young people are already present in cyberspace and often with more experiential knowledge than their guardians and gatekeepers, MyDigitalFootprint.org situates young people as active participants rather than pre-scripted victims or criminals, as “netizens” who have to cohabitate with monsters (be they online predators, cyberterrorists, or data-aggregating social networks) in a public environment. (Donovan 2009)

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<sup>5</sup> In a different domain, various government accountability websites, like USAspending.gov, while quite cumbersome, can give citizens and others information about where government funding is going so that they can make informed demands for change. There are many similar sites that track voting records, spending on election campaigns, and other elements of political systems.

While it could be misconstrued as encouraging disciplinary self-surveillance, this project instead invites youth to take stock of their own information environments, define problems according to their own criteria, and seek collective solutions to reassert information control.

Even surveillance systems that have long been associated with covert military functions can be appropriated for social justice and empowerment goals. Earth remote sensing (ERS) satellite systems offer a case in point. As Lane DeNicola describes, imagery activists are harnessing ERS to assist with “environmental forensics, public disclosure, counter-mapping, urban ecosystem analysis, and the coordination of community data collection efforts” (DeNicola 2009). For instance, genocides can be documented and represented through such systems, transforming what might be thought of as hidden or contested knowledge into information demanding action and intervention. The “Crisis in Darfur” project, sponsored by Google and the U.S. Holocaust Memorial Museum, shows the persuasive force of such imagery, provoking this affirmation from former President George W. Bush: “millions of Internet users around the world will be able to zoom in and see satellite images of the burnt-out villages and mosques and schools. No one who sees these pictures can doubt that genocide is the only word for what is happening in Darfur -- and that we have a moral obligation to stop it” (Graham 2010). And while solid critiques can be made about the Crisis in Darfur project, such as it “reproduces problematic Western tropes of African tragedy and misses an opportunity to generate public literacy around satellite images,” (Parks 2009) the potentials for empowering surveillance remain. Another compelling example of imagery activism is the SkyTruth project, which uses satellite imagery to document oil-spill disasters and overdevelopment in the American Midwest by multinational petroleum companies. Walsh, in this issue, takes a similar tack, studying how sophisticated surveillance systems along the U.S.-Mexico border can be used to monitor and resist both state agencies and vigilante organizations, and to directly assist migrants in danger.

There are many other possibilities for empowering surveillance. It is our belief that as the field begins to think more symmetrically about what constitutes surveillance that many more examples will emerge. Like all technological systems, surveillance is polyvalent, so there will always be caveats and qualifications; we expect that every positive example will possess attributes that appear empowering coexisting with some that are disempowering. Finally, social context is fluid, so something that might seem empowering today for some people might yield different outcomes tomorrow. All of this just points to the need for scholars to remain critical even in the pursuit of something they can support.

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