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Technologies of Repression: Surveillance of Contemporary US Protest Movements

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Abstract: This paper examines how surveillance technologies enable repression of protest movements in the United States using Imani Perry's heteropatriarchal triad as an analytical framework.

INTRODUCTION

The history of mass protest and organizing in the United States is simultaneously a history of state repression. As new technologies have become available to both protestors and state forces, techniques of surveillance in particular have evolved rapidly. The purpose of surveillance of protest movements—namely, their repression—has remained unchanged, but social media and facial recognition technologies have led to changes in the tactics of repression used by police forces and the overall capabilities of surveillance infrastructure. These increased abilities for repression have important implications for protest movements, as state repression is generally used to uphold existing power structures, which protest, especially by leftists, aims to disrupt. This paper uses Imani Perry's heteropatriarchal triad to analyze how surveillance and responses to it respectively uphold and challenge the existing social order. The role of current STEM epistemologies about technology and its effects is also considered. This work is in partial fulfillment of the ENGR184 course using the blueprint curriculum in Ref [1,2] and captured in a collection [3].

MECHANICS OF SURVEILLANCE

The ubiquitous security cameras in Lower Manhattan around Ground Zero are a useful metaphor for the repressive effects of supposedly protective surveillance technology. While these cameras are intended to convey that state forces are watching and thereby keeping everyday citizens safe from violent threats, "they cannot help but intimidate, agitate, and surveil the citizens within, as well as undoubtedly interfere with and inform the movement of those citizens they are designed to protect" (Aubey et al., 2024, p. 382). Surveillance has historically been used not only to capture information used for suppression of protest movements but also as a suppression tactic in and of itself. Covert repression more broadly, including infiltration and surveillance of social movement organizations (SMOs) by state actors, "focuses on the political identity or claims of a social movement and therefore generally follows more proactive and purposive strategy" than traditional forms of overt repression such as visible police patrols (Rafail, 2014, p. 239). That is, the surveillance of organizations is not tied to any indication of an actual threat they might pose to life or property, and "groups or movements are often surveilled or infiltrated when they pose little threat to public order or national security" (Rafail, 2014, pp. 239–240). The selection of targets of surveillance is instead based on how coherent their ideological positions are; "stigmatized movements or groups," including groups representing racial/ethnic minorities or queer people, are also selectively targeted because "it is easier to justify actions against such groups to the general public, who … are less likely to oppose [the] repression" of such movements (Rafail, 2014, p. 240). In particular, surveillance has been used in a racialized manner to intimidate movements centered on the Black experience in the US, from the civil rights and Black Power movements of the latter half of the twentieth century to the current Black Lives Matter (BLM) movement. According to Destine (2023), "The 'extremism' label is liberally applied to BLM activists to silence young Black protestors and a growing intersectional movement" (p. 263). By labeling this movement's members as "extremists," state forces deliberately stir up public animosity towards them to justify any surveillance efforts that come to light. In a broader case of vilification of Black organizers, Heh and Wainwright (2022) observe that emphasizing scattered instances of violence during the 2020 BLM protests allowed "police surveillance and judicial prosecutions … to mask themselves as justifiable insurances of security—security against an 'unruly mob'

of Black radicals" (p. 133). The racialized nature of these portrayals is deliberately used to further alienate the (white) general public to whom police statements appeal from the protestors subject to surveillance and even direct violence from the forces of the state. Furthermore, surveillance has a racially disparate impact on the population, not only through direct consequences for organizers in racial justice movements but also for Black people outside of these movements, who are still subject to the conditions (e.g., a disproportionately high likelihood of being killed by the police) that the movements are seeking to change. When the movements' efficacy is limited by their being surveilled and labeled as terrorist activities, the likelihood of organizers succeeding in creating change is severely diminished, and hegemonic systems of racial oppression remain in place.

The tactics of police surveillance depend heavily on technology, especially newly available methods and devices, meaning that the work of engineers and other professionals in STEM fields can have major consequences for social movement organizations. The fact that everyone now carries a cell phone in their pocket, even laying aside the ways people use them to connect with one another, presents the state with new ways to surveil the population. For instance, "Stingray systems allow police to surveil and potentially criminalize all those with cell phones at protests, regardless of whether they are participants or bystanders … In effect, simulators allow police to transcend the geographic and temporal boundaries of protests to follow activists as they move through the city" (Heh & Wainwright, 2022, p. 125). This enables state forces to surveil people without their actually being physically present at a protest, or even affiliated with the protest at all—a clear expansion beyond a mandate of "keeping the peace" by preventing violence or property destruction at the site of a protest. Various kinds of aircraft are also used for surveillance, with disparate psychological effects: "When [surveillance aircraft are] flown at high altitudes, protestors are unable to discern if they are being monitored. At lower heights, aerial vehicles can be used to intimidate protestors, exacerbating insecurity and surveillance-induced paranoia" (Heh & Wainwright, 2022, p. 126). The images captured using aircraft as well as more conventional cameras are often run through facial recognition software, whose use is often justified as "as a necessary measure to maintain 'public safety' and order during a time of civil unrest" (Zalnieriute, 2025, p. 119). However, there are serious concerns about the widespread use of facial recognition technologies, in part because this "technology can be easily misused by law enforcement to target certain groups of people, such as political activists or marginalized communities, and such targeting often leads to further discrimination and injustice" (Zalnieriute, 2025, p. 121). The targeting involves the removal of protestors' anonymity, which "has been fundamental to social movements and protesting, as these events require the population to feel confident and safe in their ability to gather in public spaces and manifest their disagreement with the status quo. This is impossible if they fear surveillance tools can be weaponized against them to suppress and punish their dissent" (Zalnieriute, 2025, p. 123). In this way, the existence and visibility of facial recognition technology and surveillance cameras has a repressive effect on public protest even before any actual targeting of activists for arrest and prosecution takes place. The threat of identification and the consequent wariness of environments in which one could be surveilled serves to discourage people from joining protests, thereby curtailing what is often "the only way to [participate in government], in addition to voting" (Zalnieriute, 2025, p. 128).

In addition to surveillance of protestors in physical spaces, social media has also become a site for monitoring and repression of social movements. Common narratives about social media emphasize its usefulness to activism in bringing together people who might otherwise not have met and enabling the organization of mass demonstrations. However, Owen (2017) is "wary of claims that suggest social change—especially toward an enhanced democratic freedom—and technology are intimately linked. Claims of this nature generally refer to one of two things: either technology levels the playing field by allowing protestors to evade detection and/or to better counter-surveil police; or that technology engenders social change by allowing democratic activity to flourish" (p. 689). While the first claim is not necessarily false, "the far greater likelihood is that the information generated by protestors is itself likely to be used by police and/or the state to further enhance their surveillance capabilities and the potential for later arrests or monitoring of individuals" (Owen, 2017, pp. 690–691). Due to the fundamental power imbalance between state forces and protestors, social media's leveling potential is undermined, as evidence of demonstrators' attempts to evade state surveillance is itself subject to surveillance. One

particular way in which information on social media is surveilled is through predictive policing technologies, which purport to identify times and places where crimes (and often legal forms of civil unrest as well) are likely to be committed. This is often justified on grounds of "national security" or prevention of unrest (Grill, 2021). However, the actual effects of predictive policing are concerning from a civil liberties standpoint: "Places may be policed more frequently, while individuals may become subject to heightened surveillance. These approaches have been critiqued for reproducing and amplifying systemic racism and other forms of inequality prevalent in contemporary policing practices and broader society" (Grill, 2021, p. 814). These effects demonstrate that "research into civil unrest prediction is not simply neutral but implicated in a broader security and surveillance apparatus that sees unrest and protest as risky" (Grill, 2021, p. 824). This new monitoring technology has not only changed the landscape of surveillance but also demonstrated the justifications of objectivity and benign helpfulness in enforcing the law that are used to support the adoption of surveillance technologies. "Predictive" technologies are supposed to give indications of what will (likely) happen in the future, which not only represents a significant departure from punishing lawbreaking as it occurs but also, given the fallibility of these technologies, makes surveillance of people who do not even intend to commit crimes inevitable. In reality, this scattershot monitoring serves the purposes of a state to which all protest is "risky"—the direct intimidation of activists by visible surveillance and the paranoia resulting from knowing that all of their social media activity can be monitored will make many people scared to participate in mass protest movements. Without the ability to use social media as a space to organize safely, protestors derive no benefit from this supposedly liberatory technology and are directly harmed by technologies of surveillance, indicating that portrayals of technology as inherently progressive and democratizing are at best fatally flawed, if not dangerously misleading.

While developers of technologies relevant to protest and its suppression seem to have engaged only superficially, if at all, with the effects of their work, members of the media have begun to grapple with their role in an environment of surveillance of social movements. Activists have long struggled to have their views accurately portrayed in mainstream media; for instance, in the case of an online demonstration against mass surveillance, "some outlets constructed a narrative of indifference, futility, and failure … [and] to audiences who did not directly participate in the activist networks, the campaign was presented as an irrelevant and ineffective answer to a problem that no one really care about in the first place" (Waescher, 2017, p. 378). Repeated misrepresentations have created a climate of mistrust of the media in activist spaces, which is exacerbated by the role that photojournalists especially can play in helping police to identify demonstrators (Canella & Bock, 2025). During the height of the BLM movement in 2020 and the wave of Palestinian solidarity encampments at universities across the United States in 2024, protestors asked journalists to blur their faces in published photos "for two primary reasons: first, protesters have faced significant reprisals from employers, academic institutions and the state for participating in these demonstrations; second, advanced surveillance techniques, specifically facial recognition technology, are increasingly being used by law enforcement and private actors to target political dissidents, compromising activists' safety and changing their expectation of privacy in public spaces" (Canella & Bock, 2025, p. 2). Responses from journalists were mixed. Some agreed to blur photos because of the risks identification posed to protestors (especially since these demonstrations were overwhelmingly peaceful and exposure of participation was therefore seen as unjustified), while others refused to take actions they saw as jeopardizing their journalistic integrity and commitment to reporting the truth (Canella & Bock, 2025). There was no single conclusive response to protestors' demands from journalists, but the discourse sparked brought greater awareness to the fact that journalism does not operate in a vacuum—it can have serious consequences for the people whose lives are made the subject of media coverage.

ANALYTICAL FRAMEWORK

Imani Perry's concept of the heteropatriarchal triad is useful in considering how surveillance of protest movements serves to reinforce existing power structures and how this relationship could be disrupted. Strategies of surveillance and repression of protest movements often rely on excluding certain people from at least political personhood, if not the full sense of ability to own property and participate in society (Perry, 2018). As examined earlier, protest is a key element in political participation in the

representative democracy of the present-day United States. The only other arena for participation is voting, which occurs at long intervals, not in response to rapidly changing conditions; there are also many areas of state policy that are not responsive to voting in different representatives, whether because they are carried out by unaccountable executives or because of unshakeable bipartisan consensus among politicians that does not reflect majority public opinion. Therefore, preventing people from protesting, whether directly or through surveillance tactics with a chilling effect, denies them political personhood. The state, especially through police forces, exercises sovereign authority in deciding who can protest, how they can protest, and what forms of repression they will face. In the case of arrest and prosecution, sovereign authority can be used to deny both the freedom of movement necessary to protest (through imprisonment) and the right to vote, resulting in the destruction of political personhood. Property also forms an important part of this relation, as both public and private ownership of the land where protest occurs can be used to justify its repression, and occupation or destruction of property is frequently treated as a more serious threat to society than the surveillance or direct repression of protest movements necessary to restore the sanctity of that property.

DISRUPTING THE TRIAD

Anonymous protest presents a fundamental threat to the heteropatriarchal triad, which is why repressive tactics such as surveillance utilize the denial of anonymity as a repressive tactic. On a purely practical level, "[o]ne rationale for a mass demonstration … is that it will be inconvenient (if not impossible) for authorities to detain every participant and thence determine the identity of those people. Digital technologies upset that rationale, facilitating the identification at a distance of every participant and every bystander present in a particular location" (Baer Arnold, 2023, p. 60). Surveillance technologies can serve to scare people away from protests and therefore limit the disruptive effects of protest on the heteropatriarchal triad—for instance, BLM's demand for the limitation of sovereign authority through police reform or especially abolition. However, there is a deeper sense in which mass protest is difficult for heteropatriarchal structures to target. During protest, demonstrators "sacrifice their individual voice for the benefit of social disruption" and receive anonymity in return (Zalnieriute, 2025, p. 123). Because the heteropatriarchal triad defines personhood individually, and even efforts by the state to strip someone of personhood occur on an individual level, the collective image of protestors in social movements presents an obstacle to the sovereign authority's attempts to repress protest. For this reason, the surveillance techniques discussed in this paper have the primary effect of isolating individual protestors for monitoring and punishment. However, the use of masks by protestors in response to surveillance has a collectivizing effect beyond merely making surveillance less effective. As Baer Arnold (2023) contends, "for social movements the process of anonymisation through wearing a … mask that obscures identity gives participants in a social change event a symbolic equality as undifferentiated representatives of civil society, subverting regimes in which everyone outside an elite is potentially knowable, disciplinable and located within a hierarchy" (p. 67). Thus, a practical response to heightened surveillance reaffirms the nature of protest as a collective effort that is more effective and provides more protection to participants than individual confrontations with the state.

CONCLUSION

The surveillance of social movements in the United States has important ramifications for the maintenance of existing hierarchies and the ability of people to challenge the state effectively. Technology plays a key role in surveillance, and the outcomes of surveillance of protests make it clear that the technologies used are not simply neutral tools that are sometimes misused but rather that their development is based on fundamental assumptions about the nature and desirability of protest. In contrast to to the dominant STEM epistemology that all progress is desirable and that a technology's users are the ones who need to consider its ethical implications, the example of surveillance technologies demonstrates that the creators of technologies whose very existence can challenge protest efforts have a responsibility to reflect on the use to which their work will be put before undertaking it.

REFERENCES

1. Lee, Ethan, et al. "Education for a Future in Crisis: Developing a Humanities-Informed STEM Curriculum." arXiv preprint arXiv:2311.06674 (2023).
2. Sergio Carbajo, Nurturing Deeper Ways of Knowing in Science, Issues in Science & Technology, 2025, v. 41, n. 2, p. 71, doi. 10.58875/jkrw4525
3. Carbajo, S. (2026). Queered Science & Technology Center: Volume 4. Queered Science & Technology Center, 4. Retrieved from https://escholarship.org/uc/item/0zb930m0
4. Aubey, M., Britt, K. M., & Gold, K. (2024). Policing, Power, and Protests: Landscapes of Surveillance in Private and Public Spaces in Lower Manhattan. *Historical Archaeology*, *58*(2), 371–388. https://doi.org/10.1007/s41636-024-00512-9
5. Rafail, P. (2014). What Makes Protest Dangerous? Ideology, Contentious Tactics, and Covert Surveillance. *Research in Social Movements, Conflicts and Change,* 37, 235–263. https://doi.org/10.1108/S0163786X20140000037026
6. Destine, S. L. (2023). The importance of intersectionality in evaluating the surveillance and protest politics of the Movement for Black Lives (M4BL). In M. W. Yarbrough, C. S. Shdaimah, & S. A. Boutcher (Eds.), *Research Handbook on Law, Movements and Social Change* (pp. 254–267). Edward Elgar Publishing. https://doi.org/10.4337/9781789907674.00026
7. Heh, E., & Wainwright, J. (2022). No privacy, no peace: Urban surveillance and the movement for Black lives. *Journal of Race, Ethnicity and the City*, *3*(2), 121–141. https://doi.org/10.1080/26884674.2022.2061392
8. Zalnieriute, M. (2025). Facial recognition surveillance and public space: protecting protest movements. *International Review of Law, Computers & Technology*, *39*(1), 116–135. https://doi.org/10.1080/13600869.2023.2295690
9. Grill, G. (2021). Future Protest Made Risky: Examining Social Media Based Civil Unrest Prediction Research and Products: Future Protest Made Risky: Examining Social Media Based Civil Unrest Prediction Research and Products. *Computer Supported Cooperative Work*, *30*(5), 811–839. https://doi.org/10.1007/s10606-021-09409-0
10. Owen, S. (2017). Monitoring social media and protest movements: ensuring political order through surveillance and surveillance discourse. *Social Identities*, *23*(6), 688–700. https://doi.org/10.1080/13504630.2017.1291092
11. Canella, G., & Bock, M. A. (2025). Anonymous dissent: Protest, privacy, and photographic surveillance in digital media. *New Media & Society*. https://doi.org/10.1177/14614448251349830
12. Waescher, T. (2017). Framing Resistance Against Surveillance: Political communication of privacy advocacy groups in the "Stop Watching Us" and "The Day We Fight Back" campaigns. *Digital Journalism*, *5*(3), 368–385. https://doi.org/10.1080/21670811.2016.1254052
13. PERRY, I. (2018). SEAFARING, SOVEREIGNTY, AND THE SELF: Of Patriarchy and the Conditions of Modernity. In *Vexy Thing: On Gender and Liberation* (pp. 14–41). Duke University Press. http://www.jstor.org/stable/j.ctv11cw534.5
14. Baer Arnold, B. (2023). Masks against panopticism? Enabling and contesting social change through anonymous engagement. In M. W. Yarbrough, C. S. Shdaimah, & S. A. Boutcher (Eds.), *Research Handbook on Law, Movements and Social Change* (pp. 56–70). Edward Elgar Publishing. https://doi.org/10.4337/9781789907674.00011