

## Technological Inequality, Contextual Privacy, and COVID-19

In response to the COVID-19 pandemic, a variety of scholars, technologists, and policymakers have mounted robust defenses of privacy in the face of expanded regimes of health surveillance and novel accumulations of medical data. While this work is critically necessary, to this point it has tended to cohere at the level of technical design--as with calls for privacy-by-design (Ada Lovelace Institute 2020) and best practices in anonymization and data sharing (Ienca and Vayena 2020)--or at the level of normative political stakes, such as recent critiques of the techno-solutionist impulses of many COVID monitoring apparatuses (Kitchin 2020) and the normalization of medical surveillance (French and Monahan 2020). This is to say, minimal research has focused on the privacy dimensions of health surveillance systems as they are being lived by addressing the quotidian experiences of the people who encounter them. Such an oversight threatens to produce systems that reduce risk and protect privacy at the level of the community while failing to ensure equitable outcomes within it. We must account for--and hold ourselves accountable to--the diversity of privacy concerns by investigating and seeking to address these differences as they are experienced in practice, and we must commit to doing so now. Even this conference, like so many others, does not include a call for scholarship that considers how these technologies function in regard to the privacy concerns of marginalized individuals. This oversight, while likely unintentional, exemplifies sustained inattention to the experiences of these communities

The shocking health disparities associated with COVID-19 have been well documented (Hooper et al. 2020). However, as has been less discussed, these disparities additionally extend to the design, production, and implementation of technologies that track the spread of COVID-19. Aouragh et al. (2020) have argued that these technologies--particularly contact tracing apps--are a mechanism as well as a result of the same extractive, racialized capital that drives vicious rare earth mining practices and labor abuses in technology manufacturing within a geopolitical schema that materially benefits the Global North by the impoverishment of the Global South. Further, these tools are not equally available to all in the US, as preexisting racial and socioeconomic inequalities including in smartphone ownership exclude many from access or benefit (Kitchin 2020). Building on critical work that has demonstrated how technologies come to embody raced, gendered and classed forms of injustice (Benjamin 2019, Eubanks 2018, Noble 2018), it is imperative that we seek to understand how the privacy politics of COVID-19 technologies are creating different kinds of protections and precarities for members of different groups.

Importantly, these disparities are determined not only by individual positionality but by the variety of institutions and actors driving such technological interventions. Although contact tracing and other forms of health surveillance have historically been treated as the sole jurisdiction of public health departments or related governmental agencies, within the piecemeal regimes of COVID-19 suppression in the United States, such efforts now come from a variety of authorities and "authorities" beyond governmental actors. For example, the use of thermal

cameras in retail settings (Nellis 2020), infection risk maps produced by credit agencies (Shacklett 2020) and forecasting companies (Fowler 2020), and wearable technologies mandated to track infection in the workplace (Rodriguez et al. 2020) represent the efforts of a variety of stakeholders with different orientations toward the individuals who constitute both the subjects and objects of their data practices. The outcomes engendered by these differences are important not only for improving compliance, but individual safety: for instance, while a retail worker may readily share details about a union meeting with a county contact tracer, the same information would expose her to very different risks in the hands of her employer. These differences are deeply contextual, and demand that we become sensitive to the specificities of privacy as it is constituted in unique relationships between individuals, groups, and institutions.

As academic researchers, we have been well positioned to examine technological and privacy inequalities in the context of the health monitoring and COVID-19 tracking systems associated with university reopenings and are currently in the process of collecting data about privacy conditions on our own campus, UCSD. Our early results suggest deep disparities in the scale and specificities of privacy risks encountered by different members of our campus community. Nissenbaum (2009) has argued that notions of privacy are deeply contextual and dependent on the material-discursive power relationships and related informational norms unique to each social setting. Universities represent a multiplicity of such settings, functioning simultaneously as employer, educator, landlord, healthcare provider, visa sponsor, and more to members of their diverse communities. Despite this heterogeneity of informational, institutional, and infrastructural contexts, university reopening programs and their enclosed regimes of health surveillance have tended to be imposed as flat ordinances, collecting the same types of data and imposing the same kinds of restrictions across all students, faculty, and staff. This contextual flattening in turn creates heterogeneous risks and privacy concerns for individuals who occupy different social positions and relate to the university in different ways, giving rise to diverse attempts to cooperate with, evade, or thwart data collection efforts.

While universities represent a particularly fraught site of struggle over the use of health surveillance for a variety of factors, they are not alone: similar kinds of relational diversity inflect all efforts to study, track, or contain COVID-19 through the use of health data. For example, the case clusters associated with LGBTQ bars in South Korea triangulated histories of “gay diseases” and “dirty clubs” within an already stigmatized community, leading many to fear that they would be outed amidst the resultant contact tracing and media investigations (Kim 2020). Similarly, the law enforcement claim that “contact tracing” could be used to link protestors and activists to Black Lives Matter events in Minnesota (Mullins 2020) figured health surveillance as a legal--rather than medical--program, refiguring privacy concerns within a racialized and geographically specific discourse. We must remain attentive to the contextual specificities of COVID-19 technologies and the data they generate if we want to understand, redress, or--hopefully--prevent similar harms in the future.

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