

Algorithmic Governmentality and the COVID-19 Pandemic*

The rapid unfolding of the COVID-19 pandemic and the disjointed, contradictory, and uneven responses by world, national, and local governments have prompted many questions and concerns about the implementation of existing and new governing methods used to manage this crisis. The pandemic has most frequently been presented as a biosecurity crisis: a suspension of norms connected with the ease of movement through the public sphere and limiting of physical intimacy—what was called social distancing—in the name of public health.¹ For some, the declaration of the pandemic as a biosecurity crisis provides evidence of an extension of prior uses of the state of exception, a theoretical framework through which we understand the state to ignore safeguards, regulatory restrictions on power, and democratic procedures through the suspension of the law. Understood through the logics of biopolitics, another regularly used framework for understanding the pandemic, one would then see this crisis as a tightening of the screws of individual and population management in the name of protecting public health. Connecting these two dominant paradigms are the array of networked communications technologies that have emerged as one of the major tools available to both ameliorate the effects of social distancing and to track the movement of the people during quarantines and lock-downs. These technologies, some of which were previously in use at a much smaller scale and then

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¹ The language of biosecurity was used broadly to describe the governmental response to the crisis by both political theorists and politicians: “We can either have a free society, or we can have a biomedical security state,” Mr. DeSantis said this week in Panama City, Fla. “And I can tell you: Florida, we’re a free state. People are going to be free to choose to make their own decisions.” Patricia Mazzei, “As Covid Surges in Florida, DeSantis Refuses to Change Course,” *New York Times*. Aug. 6, 2021. <https://www.nytimes.com/2021/08/06/us/ron-desantis-florida-covid.html>.

suddenly widely adopted and others created anew for the pandemic, became the primary mode of communication among socially distanced people. Physical proximity is key to these technologies; some make it possible to preserve distance while others, in a mostly automated fashion, register physical interactions between individuals, intentional or not, that are flagged as potentially dangerous because of the risk of exposure to known carriers of the COVID-19 virus. This essay examines the later class of technologies, especially those deployed in the Apple and Google co-created COVID-19 smartphone-based contact tracing applications, and unpacks their relation to new paradigms designed for distant governing.

There are four major ways in which networked, digital technologies were used as part of what we might want to think of as the broader governing apparatus deployed in response to the COVID-19 pandemic: 1) the collection of population-based data and use of statistics to inform decision making; 2) the visual presentation of data in a dashboard; 3) the expansion of surveillance technology, including the use of machine learning methods, related to the automation of contact tracing; and 4) computer technology and high-speed networking, of course, were also used to enable working and studying from home, to facilitate video communication between friends and colleagues, and to intensify the already-existing migration to online shopping, entertainment, and delivery services. This final category is perhaps the most innocuous use of technology in the suite of COVID-era governing practices, although it does have an important ideological dimension as these habits and practices intensify existing moves toward the quantification of everyday life and the associated use and abuse of these personalized data.

There are numerous concerns with the growth of surveillance capitalism, most notably the rendering of data about our activities as commodities that can be packaged, marketed, and

sold for use as insights about behavior and preferences. The ready acceptance of these practices demonstrates the degree to which individuals have been prepared for feedback loops by which our actions and choices, filtered and algorithmically processed in relation to data collected by masses of others, generate new possible choices for future actions that are seen as valuable and meaningful. The increasing use of video conferencing technologies and social media applications to facilitate communication may also contribute to the redefinition of connection and sociality during and after the pandemic.

Proximity and connection are indeed the crucial terms of the pandemic as individuals became increasingly concerned with keeping their distance while preserving connection. These tensions activate a range of practices and resulting anxieties. In the foreword to *Where Are We Now? The Epidemic as Politics* (2021), his collection of newspaper articles, blog posts, and other writings, political theorist and philosopher Giorgio Agamben describes what he sees as one of the major aftereffects of the pandemic, the reconfiguration of social relations:

If the juridical-political apparatus of the Great Transformation is the state of exception, and the religious apparatus is science, on the social plane this transformation relied for its efficacy upon digital technology which, as is now evident, works in harmony with the new structure of relationships known as “social distancing.” Human relationships will have to happen, on every occasion and as much as possible, without physical presence. They will be relegated—much as was already happening—to digital devices that are becoming increasingly efficacious and pervasive. The new model of social relation is

connection, and whoever is not connected tends to be excluded from relationships and condemned to marginalization.²

Social distancing is enabled by technology and used to map relations produced through the densification of the population. These mapped relations are the precondition for profiling, for determining risk, and for tracking the spread of the virus. While Agamben's greatest concern with technology in his essays appears to be the increase in digital mediation in terms of communication and the reduction of face to face encounters, it is the rapid adoption of dashboard presentation of data, statistics, and algorithmically enhanced contact tracing that represents one of the more concerning aspects of the COVID-19 crisis. What Agamben presents as a new model of social relations is determined primarily by association, by connection with others, and is not without precedent. While he sees this as primarily activated by humans, this association-based model is the primary logic found in contemporary algorithms that control much of our lives, both digital and material.

Contact Tracing

Contact tracing is exactly the sort of relation mapping problem that network analytical technologies are designed to solve. And yet the contact tracing framework jointly developed by Google and Apple was not successful and was not instrumental in reducing the spread of COVID-19. In critiquing the function of these much touted applications—at least in the early days of the pandemic—and understanding why this contact tracing framework failed, we can better understand the stakes of a shift in governing practices toward automation, correlation, and

² Giorgio Agamben, *Where Are We Now? The Epidemic as Politics*, translated by Valeria Dani (Lanham, MD: Rowman and Littlefield, 2021), pp. 9-10.

predictive targeting. Apple and Google's contact tracing applications failed in the sense that they were under-deployed, ineffective, and ultimately abandoned. While Google's own researchers were aware of some of the serious limitations of such technology as well as the myriad issues connected with bias involving the surveillance of individuals, these technologies were imagined as crucial to keeping a virtual eye on the population. While one tentative thesis for the failure of this surveillance framework might be that the problem these applications were intended to solve was just not solvable through technological or other means, the way in which they function is highly compatible with other surveillance technologies. There are, however, some specific technological limitations, from both a practical and theoretical perspective, of this cooperatively developed framework. Were these solutions to the COVID-19 crisis distinct from those deployed in other, earlier moments in the unfolding big data-driven medicalization of everyday life? Was there something different about this moment and the dynamics of this infectious virus?

In Slavoj Žižek's *Pandemic!: COVID-19 Shakes the World*, he asks a question of the data-filled pandemic year, "One interesting question raised by the coronavirus epidemic, even for a non-expert in statistics like me, is: where does data end and ideology begin?"³ Žižek's question points to the difficulties in sorting out and interpreting information during such a crisis. Data, like everything else, is of course never free of ideology. The data collected, interpreted, and presented back to the public during the pandemic brought with it new instructions in how to read the presentation of data. These charts and graphs were subject to the same levels of intense scrutiny as choices made by institutions and individuals in response to these data. Not all data are the same, however. When we see data about ourselves derived from big data algorithmic transformations, we are already seeing ourselves, or something we might misrecognize as

³ Slavoj Žižek, *Pandemic!: COVID-19 Shakes the World* (New York: Polity, 2020), p. 55.

ourselves, through the distorting lens of ideology. What we are offered in these data are reassembled fragments of ourselves and others patched together in ways that are not comprehensible to us because they are not primarily designed for us. The data tabulated, displayed, and continuously checked in so many “dashboards” are mostly aggregate statistical data and not drawn from big data operations. These show averages and population-level summaries, not personalized predictions. Everyday encounters with the results of big data and uneasiness with which we encounter the results of personalization, however, have made it difficult to interpret all forms of data.

The early years of the twenty-first century have been characterized, in part, by an increased pressure toward individualization and personalization. These pressures are linked and dependent upon neoliberalism’s idealization of the entrepreneurship of the self and an acceleration of business-serving technologies in everyday life. These technologies serve business because in their exploitation of neoliberalist dictates and people’s desire for greater individualization, businesses are able to open up new markets and create new products from behavioral data produced through consumer interactions. The conversion of qualities into measurable data—movements and actions like clicks, attention as measured by preferences, and biometric records from physical devices—is one of the prerequisites for the commodification and economization that theorists like Wendy Brown argue are the hallmarks of neoliberalism: “[the] widespread economization of heretofore noneconomic domains, activities, and subjects, but not necessarily marketization or monetization of them, then, is the distinctive signature of neoliberal rationality.”⁴ The so-called quantified self, an evolution of the focalized self-examining and self-

⁴ Wendy Brown, *Undoing the Demos: Neoliberalism’s Stealth Revolution* (New York: Zone Books, 2015), pp. 31-31.

adjusting energies of the disciplinary subject, takes its place at the locus of these contemporary movements. The appearance of the quantified self was dependent on already existing features of neoliberalism to take advantage of new modes of entrepreneurial decision making. Rendering actions, feelings, and connections with others as numerical data through processes that have been conceptualized as “datafication” by Kenneth Cukier and Viktor Mayer-Schönberger makes these same actions, feelings, and connections comparable to those experienced in the past and to those experienced by others.⁵ The collection of these data and correlations “discovered” among individual and collective data equips the quantified self with enhanced views into encoded data, normative comparisons within pre-defined demographic groups, but not necessarily any new knowledge about the self. Debora Lupton’s definition of the quantified self is more expansive than just (self)measurement of bodily metrics as she points to the cultural context in which these practices take place: “While the quantified self overtly refers to using numbers as means of monitoring and measuring elements of everyday life and embodiment, it can be interpreted more broadly as an ethos and apparatus of practices that has gathered momentum in this era of mobile and wearable digital devices and of increasing sensor-saturated physical environments.”⁶ The neoliberal quantified self thus engages in continual acts of self-surveillance as a “technique” in support of self-improvement as part of a larger set of practices. There is also little critical inquiry, on the part of those participating in these practices, into the origins or eventual other audiences for this surveilled data as the value is placed on the data itself and the data is generally meaningless without comparative metrics. Just as a business collects data on regular performance, the profits and losses, this individual entrepreneur places a high value on personal

⁵ Kenneth Cukier and Viktor Mayer-Schönberger, *Big Data: A Revolution That Will Transform How We Live, Work and Think* (New York: John Murray Publishers, 2013).

⁶ Deborah Lupton, *The Qualified Self* (Malden, MA: Polity, 2016), p. 3.

data that can be used to generate real-time feedback—assessing risk, monitoring performance, and adjusting behavior.

Adding to anxiety over the introduction of the quantified self is the sense that the data derived from humans are primarily used as a source of revenue. The quantified self cannot be said to exist outside of corporate networks and platforms because the comparison of data requires the sharing and comparing of data. Much like the social media platforms that are free to use, but make their money from targeted advertisements, the quantified self exists within a market in which it, or its proxy as part of a data profile, becomes a product sold to others, including the original generator of data. Shoshana Zuboff gives the name surveillance capitalism to the new regimes that are rendering behavioral data into commercial products, a process by which data collected from humans can be collated, repackaged, and sold as data for marketing services and products back to these consumers and to other businesses.⁷ The COVID-19 pandemic, because of the intensity of the search for technological solutions and the speed at which technology has been applied to these problems, presents major opportunities for the violation of privacy and the reselling of data derived from human uses of these applications. The intersection of governing, data collection, health policy and practices, and the commercialization of data is an especially concerning nexus, especially when it has become part of a vertically integrated corporation.

The management of the COVID-19 crisis from a governmental aspect was, as Žižek suggests in his remarks on data and ideology, inseparable from the presentation and interpretation of data and the outsourcing of these aspects demonstrate the degree to which contemporary governing practices are imbricated; a public-private exchange of data and

⁷ Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York: PublicAffairs, 2019).

resources that while presenting itself as organized according to the logic of layered separations that would isolate public health data and private “analytics” in fact cannot make any guarantees of privacy and or non-consumptive use of individual data. Exceeding the use of data as decision-making, the presentation of data informed much the discourse and political environment as cases began to rise and as vaccines were created and distributed. The rise and fall of COVID cases were linked to the prices of commodities, the performance of the stock market, and the mood. These were all plotted on data dashboards and used to produce comparisons across regions and countries. As Jacqueline Wernimont writes, the connections between the nation state and biomedical management of the body have long been imbricated: “What we have, then, from the seventeenth to twentieth century in the Anglo-American context, are several threads that bring media and human bodies into different mediation matrices through which bodies, lives, and activities become visible, measurable, and recordable. This matrix is a site of human-techno assemblages created in the context of colonial and imperial practices, nation-state bureaucratic engines, and religious and health cultures.”⁸ While governing has long been biopolitical, the algorithmic forms used in the twenty-first century disconnect power from the body; the matrix, and here I’m invoking both the more restricted sense of the term to name multi-dimensional organizational structures of data and the broader use of the term invoked by Wernimont, no longer index subjects nor bodies as such.

Pitched as the solution to the difficult problem of contact tracing, these applications were intended to enable the owner of a smart phone to set a special state or an alert on their phone once they had received a positive COVID-19 test result. In order set this alert, the user of the

⁸ Jacqueline Wernimont, *Numbered Lives: Life and Death in Quantum Media* (Cambridge: MIT Press, 2018), p. 143

application needed a verification code from their state or regional health department, known as a Public Health Authority or PHA. Once the code was received, the user would kick off a cascade of messages to others, to those who had previously been in proximity with the person reporting a positive result. This temporally and spatially distributed network of individuals, connected however fleetingly by even the outer edges of the proximity of our ever-present tiny personal radios known as Bluetooth transmitters, would become reactivated upon notification of a positive test. Connected once again via their phones, these individuals would presumably then withdraw from sociality, seek a test, and in the case of receiving their own positive report, likewise request a code from their PHA, change their state on their phone, and begin this process once more.⁹

In order to understand some aspects of the failure of this surveillance and reporting system, we need to examine the fate of an earlier intervention into tracking of the spread of infectious viruses, a service known as Google Flu Trends or GFT. GFT, for those of you who do not remember this project, was an early warning and region-based annual flu prediction system based on people's use of likely flu symptoms as Google search terms. GFT was created in 2008 and shutdown in 2015. With GFT, Google claimed to have correlated fifty million search terms to produce a model that would predict the emergence of the flu. The system mapped search queries only within state borders within the United States. The data were aggregated and individual search data was not used in connecting individuals nor were the results traceable. A 2009 paper published by Google researchers reported 97% accuracy in predicting flu spikes. GFT did not receive much notice until its dramatic failure to predict an off-cycle flu in 2009 and then missing the peak of the 2013 normal cycle flu. In a critical essay on GFT published in

⁹ Apple Computer Corporation, "Exposure Notification."
<https://developer.apple.com/documentation/exposurenotification>

Science in 2014, David Lazer and his colleagues introduced the term “Big Data Hubris” to name the particular modes of failure that they identified in GFT.¹⁰ The researchers noticed that the method and its operators, in order to make remarkably big claims, appeared to be overfitting small data and rejecting what appeared to be some important possible search terms. “This ad hoc method of throwing out peculiar search terms,” Lazer and his co-authors write, “failed when GTF completely missed the nonseasonal 2009 influenza A—a H1N1 pandemic. In short, the initial version of GFT was part flu detector, part winter detector.” GFT disappeared shortly after this critique. At best, GFT was determined to not be any better than the already existing predictive data available from the CDC and its many faults and misfires in tracking the flu were damaging to the Google corporate brand, to the reliability and trust held by users of Google Search and to their most important application, their advertisement sales. This risk to reputation is thus a key component of understanding the use of digital contact tracing applications. In Paula Kift’s examination of what she calls the “antipolitics” of COVID-19 contact-tracing applications, she asks who really benefits from the deployment of these applications and answers: “name technology companies, on the one hand, and governments, on the other. Technology companies benefit because public-health interventions are made to depend upon privately owned devices....Governments benefit because app-based contact tracing allows them to focus public attention on treating the symptoms of the pandemic rather than addressing its cause.”¹¹

While GFT attempted to make predictions about the spread of an infectious disease from correlations found in regionally-grouped aggregate search terms, the Google and Apple jointly

¹⁰ David Lazer et al., “The Parable of Google Flu: Traps in Big Data Analysis,” *Science* 343, no. 6176 (March 14, 2014), pp. 1203-1205.

¹¹ Paula Kift, “Not Tracking: The Antipolitics of Contract-Tracing Applications,” *Public Culture* 33, no. 2 (2021), pp. 137-147, p. 141.

developed COVID-19 Exposure Notifications System or ENS depends entirely upon verified individual self-reporting. If GFT works from the information extracted from the cloud of symptoms to predictive diagnosis, then these new applications work backward from confirmed diagnosis to the dispersal of information into the field of possible contacts. In an essay titled “Big Data, Algorithmic Governmentality and the Regulation of Pandemic Risk” and published in March 2020, just as governments around the world instituted lockdowns, Stephen Roberts re-examined the GFT case and determined that it was “data incompleteness” more than anything else that was the lesson to be learned from this failure.¹² Additional data and better data, Roberts argues, would increase the ability of the tool to predict the spread of infectious diseases while also amplifying the “surveillance role of state institutions, clinicians and statisticians...and concretise new authorities of data monopolists, IT and data scientists in processes of disease surveillance.” Natasha Singer, writing for the *New York Times*, proposed several reasons for what she called the limited success of these apps. “Some limitations emerged even before the apps were released,” she writes. “For one thing, some researchers note, exposure notification software inherently excludes certain vulnerable populations, such as elderly people who cannot afford smartphones. For another thing, they say, the apps may send out false alarms because the system is not set up to incorporate mitigating factors like whether users are vaccinated, wearing masks or sitting outside.”¹³ She also invokes several technical limitations: “Computer scientists have reported accuracy problems with the Bluetooth technology used to detect proximity between smartphones. Some users have complained of failed notifications. And there is little

¹² Stephen Roberts, “Big Data, Algorithmic Governmentality and the Regulation of Pandemic Risk,” *European Journal of Risk Regulation* 10, no. 1 (2019), pp. 94–115.

¹³ Natasha Singer, “Why Apple and Google’s Virus Alert Apps Had Limited Success,” *The New York Times*, May 27, 2021.

rigorous research to date on whether the apps' potential to accurately alert people of virus exposures outweighs potential drawbacks — like falsely warning unexposed people, over-testing or failing to detect users exposed to the virus.” While Singer’s analysis of the COVID-19 ENS and Roberts’s critique of GFT both address the shortcomings of the respective biomedical applications for understanding the spread of viruses in terms of limited access to data, there is an important difference in how these applications understand relationality that leads to different problematic conclusions.

Algorithmic Governmentality

I’d like to now turn toward an explication and complication of the theory of algorithmic governmentality to think through ENS and GFT as agents of instantiating new regulatory functions and powers. The changing modes of address, targeting, and profile construction found within the charged network of algorithmically-produced correlations requires a change in thinking, a change in how we conceptualize power. Given the intense promotion and rapid adoption of artificial intelligence and machine learning across all sectors and arenas of everyday life, it is imperative to theorize how these techniques function and how they may alter existing governing practices, introduce new methods of population management, and crucially how we conceive of ourselves and others as social and political beings. Algorithmic governmentality is a concept that was jointly developed by Antoinette Rouvroy, a legal scholar and Thomas Berns, a philosopher. As its name implies, the theory is indebted to Michel Foucault and expands upon the work of Alain Desrosières and others examining the state’s invention and use of the science of statistics. Shifting critical attention from the neat rows and columns of bureaucratic administration to a messy and heterogeneous vector space, algorithmic governmentality seeks to

understand the logics of correlation within the big data era. This theory postulates an epochal shift in the use of statistics, a shift that represents a major departure from the prior use of statistical knowledge about the population. Rouvroy and Berns understand behavioral profiling as the enabling technology of algorithmic governmentality. Profiling creates statistical doubles from data about people, what Rouvroy later terms a probabilistic subject, and displaces individuals for a series of relations. Wendy Hui Kyong Chun understands such big data operations in dramatic terms, casting individuals as characters which are always multiple: “YOU is never simply singular, but also plural, which is why YOU is a particularly shifty shifter in English. This singular plurality grounds network analytics, which treats individuals in relation to, that is ‘like’, others.”¹⁴ Correlational operations render individuals multiple. Profiles are drawn from collections of similar attributes, which is to say in terms of what quantifiable items make individuals like other individuals. Chun’s use of “like” is apt as it not only gestures to the digital actions that make one person like another but because it invokes a slipperiness, an inexact gesture. This gesture is key. Algorithmic governmentality dispenses with subjects as it mines relational data, produces correlations, and classifies our doubles into multiple likely profiles.

We can understand this change by differentiating algorithmic governmentality from what Gilles Deleuze called “societies of control.”¹⁵ Deleuze, like Rouvroy and Berns, was interested in developing an answer to the question of how governance, within the Foucauldian framing of sovereign power giving way to disciplinary power, operates within a machine and computer-dominated epoch. Recall how Foucault characterizes biopower as no longer the right of death but power over life concerned with the “administration of bodies and the calculated management of

¹⁴ Wendy Hui Kyong Chun, “Big Data as Drama,” *ELH* 83, no. 2 (2016), pp. 363–82, p. 370.

¹⁵ Gilles Deleuze, “Postscript on the Societies of Control,” trans. Martin Joughin, *October* 59 (1992), pp. 3–7.

life” through “comprehensive measure, statistical assessments, and interventions aimed at the entire social body or at groups taken as a whole.”¹⁶ A continued process of decentralization, linked to the birth of neoliberalism in the 1970s, has altered the function of biopower. For Deleuze, in control societies there is an ongoing form of statistical governmentality, but now the commands are issued as controls across spaces that are no longer contained or closed. While Deleuze posits a linked but dispersed system of flows of “control” from one site to another—he cites familiar Foucauldian references of the prison, school, hospital, and corporate system—in each of these Deleuze sees control linked to individuals. “Enclosures are *molds*,” he argues, “...but controls are a *modulation*” (4). In describing Félix Guattari’s vision of a computerized city in which centralized computers check access via a card at every entrance encountered, Deleuze argues that “what counts is not the barrier but the computer that tracks each person’s position” (7). The tracking of individuals, however, is not necessarily linked to individual qualities, for as he writes in describing the transformation of the hospital under control societies: “the new medicine ‘without doctor or patient’ that singles out potential sick people and subjects at risk, which no way attest to individuation—as they say—but situates for the individual or numerical body the code of a ‘dividual’ material to be controlled” (7). The objects of control in the theorization of algorithmic governmentality established by Rouvroy and Berns are likewise potentialities. They are not attached, however, to individuals but to probabilistic profiles created through correlations of data derived from many individuals.

There is no subjectification process within algorithmic governmentality because subjects are not necessary. This is a fundamental shift with deep reaching implications. Within the era of

¹⁶ Michel Foucault, *The History of Sexuality: Volume 1*, trans. Robert Hurley (New York: Vintage, 1978), p. 140, 146.

biopolitics, which Rouvroy and Berns argue has been superseded by algorithmic governmentality, demographic and identity categories were subject to statistical governance and were attached or hinged, to use a Foucauldian term, to the concept of the statistical average. One could contest classification on this basis. The average and social categories provided points of resistance because comparison between the individual and their categories was possible and indeed required. Algorithmic governmentality avoids confrontations with individuals by addressing their doubles and, much like Netflix's automatically generated genres, it avoids pre-existing social categories. Power, Rouvroy and Berns argue, thus grasps not the physical body but the multiple profiles assigned to individuals and based on "digital traces of their existence and their everyday journeys."

The avoidance of the individual is the major new feature. While one might imagine that this is a limitation, either immanent to the methods or added as constraint in order to protect privacy, this is not the case. Like high tech militarized weapons, the techniques of algorithmic governmentality are capable of precision targeting but this form of population management avoids the possibility of direct targeting because then it would need to allow for subjectification, which comes with various limited forms of agency including the possibility of seeking redress. The theory of algorithmic governmentality is invested in understanding individuation, thus my repeated use of this term, because of the ways in which big data methods are sold as personalized but never connected with individuals—these methods address only "infra-individual data and supra-individual profiles." It also refuses any sense of a common and discourages lateral communication. Digital systems exploit features associated with neoliberalism in order to divide, categorize, and personalize. This is perhaps best seen through the typical "gallery" display in Zoom and other popular video conferencing applications: the separation of participants into the

gallery functions as a metaphor for the discrete and compartmentalizing logics embedded in all digital systems. Algorithmic governmentality thus leaves untouched the spaces of connection in which individual-to-individual transmissions take place. The “relationships” discovered among profiles through algorithmic governmentality are always derived through proximity, whether this is through proximity in mapped data space, particularly as established through similarity in terms of patterns extracted from multi-variate data or through sensing and surveillance systems like the Bluetooth radios in smartphones. Proximity presupposes disparateness and makes this, as Rouvroy and Berns put it in their subtitle, the “precondition for individuation.”

To turn back to the COVID-19 applications, ENS formalizes an attachment to the state that in GFT was only tacitly invoked by regionally-specific location data. The ENS framework required state-sponsored public health applications, either third-party or platform supplied. All reporting was organized according to state or territory and there were only twenty-six of these available. GTF is an ideal example of algorithmic governmentality while the COVID-19 applications combine data-derived proximity and network attribute information with residual technologies, the already existing disciplinary modes of governance applied to individuals and not profiles. As a technology, the broadcasting of COVID positivity to others for amplification through their networks is primarily confessional. The application and underlying systems might make some determination of which “contacts” to contact based on the time from diagnosis and how far to spread the messages by making use of a metric derived from data but the primary mode of governing centers the individual and a message. Algorithmic governmentality resists connecting the individual to the determining data and the certainty associated with a self-report or even an institutionally-authorized change of status.

Certainty sustains, perhaps counter-intuitively, deniability. Without certainty, with determination, without subjects, there is no possibility of contesting the deployment of power. The cultural and social context in which the COVID-19 applications operate are riven with sites of necropolitical and biopolitical power. The availability of the platform for running the applications, ownership of a smartphone, and the regional or local applications that connected with this platform and the forms of citizenship required or activated by using these applications are all embedded in biopower. The combination of governance techniques found in such applications is especially dangerous when they rewrite our own sense of connectivity and relationality and redefine our communities.

Despite functioning in what I have characterized above as a confessional mode, the COVID-19 contact tracing applications avoid directly linking and addressing individuals. This is because the framework uses a proxy for the body in the proximity sensing enabled by the use of Bluetooth radios. The only bodies registered are proxy bodies of those individuals carrying smartphones and not just any smartphone but only those equipped with the ENS framework and likely only those with their state-provided applications installed. Everyday passing encounters with those individuals unable to afford smartphones or those distrustful of such surveillance systems are not registered. Some bodies, the bodies of small children, for example, would not be able to be proxied by these technologies except through another body. As proxies for bodies, the vectors mapped by social network analysis of proximity are not able to include and reach many bodies. As the reporting mechanism was organized according to state and region, it is not clear that bodies from different regions were correctly recognized and notified. Curiously the boundaries and borders of belonging were reinforced during the pandemic, from regional reporting dashboards to these state and nation-specific public health applications. There is also

the fact of the reassertion of borders, not just the national borders, which were of course closed to visitors and at times citizens, but those also within the nation. This was especially true in the face of severe national failures, such as in the United States where much of the reporting, response, and decision making fell to regional and local governments. It is thus clear that the logics of separation within liberalism that have been analyzed by these critiques, including algorithmic governmentality, do not properly address the connections and proximities highlighted by contagions. Rouvroy and Bern's theory is based on the logics of atomized individuation, something that the spread of COVID-19 and indeed any contagion would call into question.

I have been interested in thinking about the body and what I would characterize as these individuals without predicates within the epoch of algorithmic governmentality. I am also resistant to the notion, as articulated by Rouvroy and Berns, that algorithmic governmentality has dispensed with social categories, for even if these categories do not exist as such, any correlations produced by any profiling will certainly encode and provide numerous proxies for race, gender, sexuality, and much, much more. Algorithmic governmentality presumes bodies without subjects—there is no need to distinguish *bios* from *zoe*, only those individuals who have profiles from those who do not. But it isn't quite correct to say that all people are regarded as biological beings by algorithmic governmentality because these systems do not create profiles for those who leave no traces. As this mode of governance does not require identification and in fact wants to avoid any direct address of individuals, identification with one's statistical double, with the automatically generated profiles, would be pointless from the perspective of power but nonetheless, one could imagine this taking place. What seems of more pressing concern is the overlay of the biopolitical lives of individuals, a co-articulation with algorithmic

governmentality.¹⁷ Such an overlay would of course involve individuals making sense of each other through the distorting lens of profiles—an interpretation of the other encouraged at every turn by digital technologies.

Many algorithmic manipulations of data derived from people possess what political geographer Louise Amoore calls the unattributable, “a potentiality that cannot be attributed to a unitary subject.”¹⁸ In response to the growing use of opaque machine learning algorithms, Amoore calls for what she terms a cloud ethics. Her cloud ethics is rooted in a self-other relation that begins with the recognition of the singularity of the other. “As the algorithm presents us with an attributive other who is never singular or particular,” Amoore argues, “it is crucial that we refuse the paradigm of attribution and amplify the unattributable.”¹⁹ COVID 19 positivity is but one attribute of an individual but the real force of algorithmic governmentality is to cause attributes to adhere in a way that we cannot inquire about the other attributes or even the determination of these attributes. For Rouvroy and Berns, within algorithmic governmentality attributes are not directly mappable onto individuals; it is the profile that is composed of attributes. Yet profiles are not reducible to attributes for they are patterns of learned correlations that cannot be mapped back to the attributed individual.

Conclusion

¹⁷ On the racial dimension of similar digital surveillance technologies, see Simone Browne, “Digital Epidermalization: Race, Identity and Biometrics,” *Critical Sociology* 36, no. 1 (2010), pp. 131–50 and Ruha Benjamin, *Race After Technology* (Medford, MA: Polity, 2019).

¹⁸ Louise Amoore, *Cloud Ethics: Algorithms and the Attributes of Ourselves and Others*. (Durham: Duke University Press, 2020), p. 171.

¹⁹ Amoore, *Cloud Ethics*, cit., p. 171.

“Sovereignty,” Achille Mbembe argues, “means the capacity to define who matters and who does not, who is *disposable* and who is not” (27). During the past year we have witnessed the intensification of the ongoing process of making disposable the lives of the elderly, disabled, communities of color, and the poor. The disproportionate number of deaths from COVID-19 in communities of color, and among Black people in particular, have been staggering.²⁰ In response to these failures, we might now have perhaps a little more ambivalence about the state’s role in public health. But we should be concerned about the unequal distribution of this aid and any reliance on digital surveillance systems. Mbembe sees Foucauldian racism as central to the construction of biopower and makes the case in terms especially apt for the COVID-19 pandemic: “In the economy of biopower, the function of racism is to regulate the distribution of death and to make possible the murderous functions of the state.” Biopower is the allowing to die of so many people over the past year. Algorithmic governmentality linked to biopower proves particularly deadly because it might be said to presuppose something like a death world without any responsibility to those who lack doubles and profiles worthy of care.

Giorgio Agamben’s response to the COVID-19 lockdowns and quarantines last summer was primarily based on his misapprehension of the virus as similar to a normal flu.²¹ Agamben’s important critique of the encroaching public-private surveillance apparatus, however, should be coupled with something that he left out: the recognition that the pandemic doubled down on the

²⁰ “The Impact of COVID-19 on Black Communities,” Data for Black Lives. Accessed August 23, 2021. <https://d4bl.org/covid19-data.html>

²¹ Benjamin Bratton argues that Agamben’s response to the pandemic is motivated by a rejection of science: “In this ongoing performance, Agamben explicitly rejects all pandemic-mitigation measures on behalf of an ‘embrace tradition, refuse modernity’ conviction which denies the relevance of a biology that is real regardless of the words used to name it.” Benjamin Bratton, “Agamben WTF, or How Philosophy Failed the Pandemic.” July 28, 2021. <https://www.versobooks.com/blogs/5125-agamben-wtf-or-how-philosophy-failed-the-pandemic>

ongoing disregard of life and what counts as a measurable and valid life. Misrecognition, misclassification, and willful blindness are common to all digital applications. The “internal” critique from within technology companies to correct these problems will not work—the case of Google’s firing of Timnit Gebru and Margaret Mitchell highlights the truth that corporations will always prioritize their own needs, their own profits, above all.²² Gebru and Mitchell, two leading experts on data bias, sought to expose what they argued was evidence of racial and gender bias baked into Google products and projects. While Gebru and Mitchell did not work directly on the contact tracing framework, their critiques were directed toward the underlying algorithms that made some individuals visible and ignored others. In particular, they have highlighted an issue in the temporality of culture, understood as an ongoing flow of ideas and political framings, that many computational models, despite their iterative and infinite updating, have not taken into account: “the ways in which new framings contest hegemonic representations.”²³ Gebru and Mitchell had hardly started when they were fired for co-authoring studies and reports on these problems with university researchers.

Academics can create subject positions for themselves by refusing identification with the profiles assigned to them and instead producing alternative relational networks that are not organized around attributes but instead on that which is unattributable. From these impossible positions, academics can do what they do best: explain, interpret, and critique. These

²² Megan Rose Dickey, “Google Fires Top AI Ethics Researcher Margaret Mitchell.” *TechCrunch*. February 19, 2021. <https://techcrunch.com/2021/02/19/google-fires-top-ai-ethics-researcher-margaret-mitchell/>

²³ Emily M. Bender et al., “On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🦜,” in *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency* (FAccT ’21: 2021 ACM Conference on Fairness, Accountability, and Transparency, Virtual Event Canada: ACM, 2021), pp. 610–623, p. 613.

explanations, as shifting analytical models of culture and governance, need ceaseless updating in order to connect one critique with another. The critique of algorithmic governmentality requires new capabilities and understandings of these techniques and ideologies. There is now a pressing need for a critique of technology and technology-enabled governance within American Studies. Critical digital studies isn't *the future* of American Studies but as this explication of algorithmic governmentality and the COVID-19 pandemic makes clear, it needs to be part of the futures of our field and the time for this work is now.

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