

POST-PANDEMIC PRIVACY LAW

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ABSTRACT

COVID-19, the global pandemic that began in 2019, altered how we live our lives in just about every way imaginable. Some of those changes were obvious—for example, those who were fortunate enough to be able to work from home began working online—while other changes were more subtle. The latter category included unprecedented levels of data collection by governments and organizations purporting to collect information that would help stop the pandemic’s spread. Given the deadly nature of COVID-19, few would question any public health efforts, no matter their impact on privacy. However, the lack of attention to privacy issues during the pandemic can and will have long-ranging effects that will lead to greater losses of privacy in the future, post-pandemic world.

This Article analyzes privacy issues in this pandemic and offers a novel framework for crafting legislation during and after this pandemic to protect privacy. The Article takes a unique socio-legal approach in contextualizing privacy-related issues arising from this time of public health crisis, examining the impact of the coronavirus itself as well as contemporaneous social issues in America that have shaped the way we must think about privacy moving forward (primarily focusing on political unrest related to the 2020 election and growing tensions involving racism and discrimination). Ultimately, the Article proposes a framework that post-pandemic privacy law should follow and provides tangible legal and policy solutions, including a federal privacy law, updates to existing legislation to reflect specific privacy considerations, and focus on privacy as an integral part of foreign policy. Finally, the Article evaluates select

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privacy-related legislation that the U.S. Congress has proposed to date in light of the Article's proposed framework and recommendations.

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INTRODUCTION

The COVID-19 pandemic has disrupted the state of affairs across the world, altering the course of human history and affecting every sector of life and law, including privacy law and policy. In the midst of a raging global pandemic that is killing millions of people worldwide, infecting many times more that number, and causing devastating economic and social consequences to all, you might be hard-pressed to find anyone¹ willing to argue that the pandemic's effects on privacy law—even if significant—are the most important topic to discuss right now. Nonetheless, privacy and civil

1. *But cf.* Tiffany C. Li, *Privacy in Pandemic: Law, Technology, and Public Health in the COVID-19 Crisis*, 52 *LOY. U. CHIC. L.J.* (forthcoming 2021) (manuscript at 6), <https://ssrn.com/abstract=3690004>.

liberties advocates have raised the alarm, and their concerns are worth hearing—even if, as I shall discuss later in this Article, we may not be able to address many or any of these concerns until after the pandemic is over.² After all, at no point in recent history have we dealt with a truly global health crisis like this:³ one that has pushed us to use technology and data to the limits of our current ability and imagination.⁴

The contagious and deadly nature of this coronavirus has forced governments around the world to adopt social distancing and contact tracing (including digital, automated contact tracing) as key response measures.⁵ This and other factors have generated a larger societal shift to remote education, remote work, and remote socialization.⁶ Across the world, people shifted to living almost their entire lives online, even experiencing important occasions such as graduations to weddings to

2. See *infra* Section III.A (proposing several considerations that ought to undergird post-pandemic privacy legislation).

3. While past pandemics, including the flu epidemic of 1918, spread globally, they could not match the speed of COVID-19's spread that has resulted from globalization and modern advancements in travel. See Liz Mineo, *The Lesson Is to Never Forget*, HARV. GAZETTE (May 19, 2020), <https://news.harvard.edu/gazette/story/2020/05/harvard-expert-compares-1918-flu-covid-19> [<https://perma.cc/J924-8E3E>] (discussing, in part, how air travel has increased the spread of COVID-19).

4. See, e.g., Lisa Baertlein, *Santa Takes a Back Seat to COVID Vaccine*, UPS, FedEx Officials Say, REUTERS (Dec. 10, 2020, 12:53 PM), <https://www.reuters.com/article/us-health-coronavirus-usa-distribution/santa-takes-a-back-seat-to-covid-vaccine-ups-fedex-officials-say-idUSKBN28K2P2> (discussing package delivery companies' use of technology to check vaccines' temperature and light exposure, among other information, during transportation).

5. See, e.g., Annual Symposium Panel Discussion Materials, *Contract Tracing and Other Innovative Technological Responses*, AM. U. L. REV. 1–3 (Feb. 4, 2021), http://www.aulawreview.org/au_law_review/wp-content/uploads/2021/02/Contact-Tracing-and-Other-Innovative-Technological-Responses-1.pdf [<https://perma.cc/5SVZ-YBHP>] [hereinafter *Contract Tracing and Other Innovative Technological Responses*] (noting how South Korea, a nation lauded for its COVID-19 response, utilized credit card transaction data to assist its contact tracing efforts).

6. See, e.g., Derek Thompson, *The Workforce Is About to Change Dramatically*, ATL. (Aug. 6, 2020), <https://www.theatlantic.com/ideas/archive/2020/08/just-small-shift-remote-work-could-change-everything/614980> [<https://perma.cc/Q9KM-YVG5>] (predicting that the increase in telework resulting from the pandemic would allow people to move away from major cities where they might have previously worked, as they no longer needed to commute to work); Jason Abbruzzese et al., *The Coronavirus Pandemic Drove Life Online. It May Never Return*, NBC NEWS (Mar. 28, 2020, 6:18 AM), <https://www.nbcnews.com/tech/internet/coronavirus-pandemic-drove-life-online-it-may-never-return-n1169956> [<https://perma.cc/C9YJ-H83M>] (highlighting the increased reliance on technology during the pandemic and positing that some innovations, such as remote teaching, will continue post pandemic).

funerals online, often through the means of remote communications platforms.⁷

Both public and private responses to the COVID-19 crisis have relied on data and technology, with serious and potentially long-lasting consequences for privacy. Contact tracing programs have required an immense amount of data for efficacy—including sensitive health data from a large percentage of the population.⁸ Medical uses of technology and data that already existed, like telemedicine and telehealth, artificial intelligence (AI)-backed medical triage programs, and healthcare robots, are now being used at a much greater scale.⁹ Schools, workplaces, and public spaces have shut down and re-opened with various levels of pandemic-related measures, often necessitating the collection and use of more personal data.¹⁰

The choices we make regarding data, technology, and privacy will have lasting repercussions for individual rights in our future.¹¹ One can

7. See, e.g., Kristen Schott, *A Philly Singer Pays Tribute to the Virtual Weddings of the Coronavirus*, PHILA. MAG. (Aug. 10, 2020, 9:11 AM), <https://www.phillymag.com/philadelphia-wedding/2020/08/10/virtual-weddings-coronavirus> [https://perma.cc/5RLS-X247] (weddings); Ryan Prior, *Funerals Go Virtual in the Pandemic. Here's How to Plan One with Meaning and Honor the Dead*, CNN (Apr. 16, 2020, 9:53 PM), <https://www.cnn.com/2020/04/16/health/virtual-funerals-coronavirus-wellness/index.html> [https://perma.cc/DM3V-3MB7] (funerals); Wylie Wong, *The Graduating Class of 2020 Gets Its Commencement—Online*, EDTECH MAG. (May 22, 2020), <https://edtechmagazine.com/higher/article/2020/05/graduating-class-2020-gets-its-commencement-online> [https://perma.cc/P3YH-PZSX] (graduations).

8. See, e.g., *Contract Tracing and Other Innovative Technological Responses*, *supra* note 5, at 7 (referencing privacy scholars' concerns that contact tracing requires vast amounts of data to be an effective tool).

9. See Annual Symposium Panel Discussion Materials, *Evolution of Healthcare Privacy*, AM. U. L. REV. 4–5 (Feb. 5, 2021), http://www.aulawreview.org/au_law_review/wp-content/uploads/2021/02/Evolution-of-Healthcare-Privacy-1.pdf [https://perma.cc/J2WK-3X4C] [hereinafter *Evolution of Healthcare Privacy*] (stating that while agency rules implementing the Health Insurance Portability and Accountability Act (HIPAA) still apply during the pandemic, the Department of Health and Human Services Office of Civil Rights has offered guidance allowing covered entities to employ remote telehealth and internet-based appointment applications to reach patients); see also ADAM BOHR & KAVEH MEMARZADEH, *The Rise of Artificial Intelligence in Healthcare Applications*, in ARTIFICIAL INTELLIGENCE IN HEALTHCARE 43 (2020) (predicting the rise of healthcare robots, assisted by AI, as a method of replacing various professionals in the healthcare sector).

10. See, e.g., *Contract Tracing and Other Innovative Technological Responses*, *supra* note 5, at 8–11 (providing examples of countries requiring individuals to scan QR codes before entering buildings, employing thermal imaging cameras to check for fevers, and relying on facial recognition technology to track citizens' movements).

11. See, e.g., *id.* at 4–5 nn.22–25 (discussing the “surveillance creep” phenomenon inherent to governments' expansion of surveillance technologies following major

begin to grasp the broader privacy dimensions of the COVID-19 pandemic only by holistically analyzing them. There is no single, unified conception of what comprises “privacy in a pandemic,” and no one solution, legal or otherwise, that can “fix” the privacy problems emerging from this time of global health crisis. However, by studying the impact of the global health crisis on privacy and technology, we can better understand the changing norms of privacy and technology in our society, and we can begin to craft new laws that will protect privacy during this pandemic and beyond.

In a prior article, I mapped the landscape of privacy issues that have arisen during this pandemic, as related to public health and technology.¹² In this Article, I build upon my analysis, and on the work of many scholars¹³ during this pandemic and before, to attempt to provide not a broad theoretical analysis of every possible privacy law issue, but rather a specific, actionable framework for creating better legal and regulatory solutions to protect privacy during this pandemic and in the future.

First, I examine the myriad effects the pandemic has wrought on society, as well as the broader societal context in which it has occurred.

events, including reticence to retract expanded surveillance long after periods of heightened alert).

12. Li, *supra* note 1, at 6.

13. See, e.g., Alan Butler & Enid Zhou, *Disease and Data in Society: How the Pandemic Expanded Data Collection and Surveillance Systems*, 70 AM. U. L. REV. 1577 (2021) (documenting the expansion of surveillance technologies in response to the pandemic and emphasizing the need for the United States to establish a federal data protection agency to protect consumer privacy); Leslie Francis, *Health Information Beyond Pandemic Emergencies: Privacy for Social Justice*, 70 AM. U. L. REV. 1629 (2021) (exploring approaches to privacy and confidentiality of health-related information and arguing that the notice-and-choice model for protecting individuals’ privacy is inadequate); Seema Mohapatra, *Passports of Privilege*, 70 AM. U. L. REV. 1729 (2021) (explaining the concept of “vaccine passports” and arguing that the passports would further exacerbate the societal inequalities that COVID-19 has highlighted); Alan Z. Rozenshtein, *Digital Disease Surveillance*, 70 AM. U. L. REV. 1511 (2021) (discussing the legal standards we should use to evaluate digital disease surveillance programs that will undoubtedly play a role in future infectious outbreaks); Anne L. Washington & Lauren Rhue, *Tracing the Invisible: Information Fiduciaries and the Pandemic*, 70 AM. U. L. REV. 1765 (2021) (suggesting that information fiduciaries independent of the technology companies involved in collecting pandemic-related data are essential for protecting privacy and instilling confidence in pandemic responses); Laura Bradford et al., *COVID-19 Contact Tracing Apps: A Stress Test for Privacy, the GDPR, and Data Protection Regimes*, 7 J.L. BIOSCIENCES (2020) (analyzing the feasibility of exposure notification systems); Natalie Ram & David Gray, *Mass Surveillance in the Age of COVID-19*, 7 J.L. BIOSCIENCES (2020) (assessing the utility of epidemiological surveillance programs).

Then, I explain the salient shifts in social norms regarding privacy that have arisen due to the pandemic, as well as outline some of the new uses of technology and public health strategies that the pandemic has introduced or expanded. Next, I propose a new paradigm for legislating privacy during and after a pandemic that consists of three essential recommendations. First, post-pandemic privacy law¹⁴ must seek to cover the entire data ecosystem, recognizing the interconnected nature of data and information, particularly given the rise of AI and machine learning technologies. Second, post-pandemic privacy law must address systemic inequalities and the ways in which privacy harms and risks disproportionately affect marginalized populations. Third, post-pandemic privacy law must be sustainable. Temporary, stop-gap solutions are effective neither for protecting privacy during the pandemic nor for protecting privacy after it. Finally, I analyze proposed coronavirus legislation and highlight gaps in these proposals and existing privacy laws, showing where the law does not properly protect privacy rights in public health crises.

There is no perfect solution, legislative or otherwise, for protecting privacy in a time of public health crisis. However, by following my proposed legislative paradigm, policymakers can create practicable, equitable, and long-lasting protections for privacy.

I. THE EFFECTS AND CONTEXT OF THE COVID-19 PANDEMIC

Creating and interpreting effective laws requires understanding the social and political factors underlying the legal issues at hand. In considering privacy in the pandemic and attempting to form a conception of post-pandemic privacy law, it is necessary to take a high-level view of the non-legal factors (and even the non-privacy factors) that may influence how to protect privacy at this time and in this space. The Sections that follow describe the severe health and other consequences of COVID-19 as well as other events occurring simultaneously that shape how we must view pandemic-era privacy law.

14. This Article uses “post-pandemic privacy law” to refer broadly to the legal framework that we need to ensure proper protection of privacy both during and following a pandemic. This terminology does not foreclose or advocate against considering new laws and changes to existing laws before the pandemic is over. We must continue to explore legal solutions to pandemic-related privacy concerns *now* and develop the law to account for our needs both during the pandemic and after it.

A. The Pandemic's Impact

The COVID-19 pandemic has generated myriad effects that have permeated every inch of the social fabric for our lives. As of April 2021, over 570,000 Americans had died from the virus, and over two-and-a-half million had died worldwide.¹⁵ Countless more have suffered from the virus, many with long-term effects.¹⁶ Still more have suffered from watching their loved ones succumb to the virus. The pandemic has also caused other tragedies, including a mental health crisis¹⁷ and several

15. Joe Murphy & Jiachuan Wu, *Map: Track Coronavirus Deaths Around the World*, NBC NEWS (Apr. 24, 2021, 10:23 AM), <https://www.nbcnews.com/news/world/world-map-coronavirus-deaths-country-covid-19-n1170211> [https://perma.cc/FAZ2-ZSZM]. While there are many theories behind why this virus became as deadly and widespread as it has, we may look to four factors to understand the virus and its global impact. First, SARS-CoV-2, the virus that causes the COVID-19 disease, is highly contagious, easily spread through not only physical contact between people but also through aerosol transmission via particles in the air. See *How COVID-19 Spreads*, CDC (Oct. 28, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html> [https://perma.cc/TX84-WXWK]. Second, the virus has a far higher rate of serious to fatal prognoses than found in other diseases like the flu. See Nick Tate, *What Changing Death Rates Tell Us About COVID-19*, WEBMD (Sept. 1, 2020), <https://www.webmd.com/lung/news/20200901/what-changing-death-rates-tell-us-about-covid> [https://perma.cc/86UJ-4YQK] (noting that the mortality rate of COVID-19 is six times that of the seasonal flu). Third, the virus has been fast-moving. Perhaps due to the globalized nature of modern travel and supply chains, the virus spread very quickly around the world, unlike other epidemics that have been more localized. See Mineo, *supra* note 3 (discussing, in part, how air travel has increased the virulence of COVID-19). Fourth, the virus can be invisible—that is, the potential for individuals to carry and transmit the virus without showing any symptoms can make the virus difficult to detect without specified testing. See *Contract Tracing and Other Innovative Technological Responses*, *supra* note 5, at 9 (discussing debates over the efficacy of thermal imaging cameras' ability to detect COVID-19 given that many who contract the virus do not display detectable symptoms like a fever).

16. See, e.g., Jon Hamilton, *How COVID-19 Attacks the Brain and May Cause Lasting Damage*, NPR (Jan. 5, 2021, 6:13 PM), <https://www.npr.org/sections/health-shots/2021/01/05/953705563/how-covid-19-attacks-the-brain-and-may-cause-lasting-damage> [https://perma.cc/W3AB-8962] (discussing inflammation and other forms of long-term brain damage from COVID-19); Monica Cortinovis et al., *Long-Term Follow-up of Recovered Patients with COVID-19*, LANCET, Jan. 8, 2021, at 173, 174 (reporting on a study that found seventy-six percent of the 1655 participants reported at least one persistent symptom of the illness six months after onset).

17. See Alison Abbott, *COVID's Mental-Health Toll: How Scientists Are Tracking a Surge in Depression*, NATURE (Feb. 3, 2021), <https://www.nature.com/articles/d41586-021-00175-z> [https://perma.cc/4MJP-RJN8] (highlighting studies and surveys that demonstrate an increase in anxiety and depression since the beginning of the pandemic).

other health consequences, such as people not receiving necessary medical care due to limited medical resources or fear of the virus.¹⁸

Not only are people sick and dying, or mourning and caretaking, but they are also suffering from the economic and social impacts of the virus. Hundreds of thousands of people have lost their jobs in the United States alone.¹⁹ The increase in unemployment is drastically disproportionately affecting women, particularly Black and Latinx women.²⁰ At the same time, many Americans have faced evictions and homelessness.²¹ The housing crisis has been so great that the federal government imposed a moratorium on evictions in 2020 and extended it in 2021.²²

Due to the highly contagious, fast-spreading nature of the virus, much of society has moved to a remote, online format, eschewing in-person contact as much as possible. While this has had negative consequences, as I explore below, it has also had the benefit of helping people remain safe and healthy. However, not all people are equally able to realize that benefit. For example, while many white-collar

18. See Kelly E. Anderson et al., *Reports of Forgone Medical Care Among US Adults During the Initial Phase of the COVID-19 Pandemic*, JAMA NETWORK OPEN, Jan. 21, 2021, at 1, 1.

19. See GENE FALK ET AL., CONG. RSCH. SERV., R46554, UNEMPLOYMENT RATES DURING THE COVID-19 PANDEMIC: IN BRIEF 3 (2021) (illustrating that the national unemployment rate in February 2020 was below four percent, but then skyrocketed to nearly fifteen percent in April 2020).

20. See Michelle Fox, *Coronavirus Financial Stress Is Hitting Blacks and Hispanics Disproportionately, Analysis Finds*, CNBC (Oct. 15, 2020, 9:02 AM), <https://www.cnbc.com/2020/10/15/coronavirus-financial-stress-hits-blacks-and-hispanics-more-than-whites.html> [<https://perma.cc/D4V9-TB27>]; Courtney Connley, *More than 860,000 Women Dropped out of the Labor Force in September, According to New Report*, CNBC (Oct. 2, 2020, 2:45 PM), <https://www.cnbc.com/2020/10/02/865000-women-dropped-out-of-the-labor-force-in-september-2020.html> [<https://perma.cc/8R7B-Y9MG>].

21. See Jacob Passy, *COVID-19 Will Cause Twice as Much Homelessness as Great Recession, Researchers Say*, MARKETWATCH (Jan. 25, 2021, 6:36 AM), <https://www.marketwatch.com/story/covid-19-will-cause-twice-as-much-homelessness-as-great-recession-study-finds-11610482333> [<https://perma.cc/JZ9K-XM7Z>] (projecting that homelessness will rise by forty-nine percent over the next four years due to an anticipated “COVID-19-related recession”).

22. See Temporary Halt in Residential Evictions to Prevent the Further Spread of COVID-19, 85 Fed. Reg. 55,292 (Sept. 4, 2020) (establishing a federal eviction moratorium to prevent the spread of COVID-19); Temporary Halt in Residential Evictions to Prevent the Further Spread of COVID-19, 86 Fed. Reg. 16,713 (extending the eviction moratorium to June 30, 2021); Lisa Rowan, *CDC Extends Renters’ Eviction Moratorium Through March. Is More Rent Relief Next?*, FORBES (Feb. 3, 2021, 12:54 PM), <https://www.forbes.com/advisor/personal-finance/biden-plan-eviction-moratorium-rent-relief> [<https://perma.cc/54P8-6RGZ>].

workers have been able to work from home, comparatively safe from the contagious virus, many people are unable to shift their work to a remote, online format,²³ including those—many of whom earn low income—who work in jobs that are considered “essential” (e.g., jobs in factories, supply chain companies, grocery stores, food service, and hospitals).²⁴ Contingent workers, including gig economy workers, have also faced increased challenges in the economic downturn.²⁵

Schools have moved online to varying extents,²⁶ endangering people at schools where in-person education remains or has resumed, while posing other challenges for those who must learn remotely. Some schools have

23. Jennifer Liu, *More than Half of Black, Latino, Native-American Workers Hold Jobs that Require in-Person Contact*, CNBC (Dec. 2, 2020, 11:25 AM), <https://www.cnbc.com/2020/12/02/black-latino-native-american-workers-face-higher-covid-19-exposure.html> [<https://perma.cc/8GMB-WS9Q>]; see Celine McNicholas & Margaret Poydock, *Who Are Essential Workers? A Comprehensive Look at Their Wages, Demographics, and Unionization Rates*, ECON. POL'Y INST.: WORKING ECON. BLOG (May 19 2020, 11:25 AM), <https://www.epi.org/blog/who-are-essential-workers-a-comprehensive-look-at-their-wages-demographics-and-unionization-rates> [<https://perma.cc/9MKM-ZRCE>].

24. See McNicholas & Poydock, *supra* note 23. As many nations and states engaged in lockdowns, mandating that businesses shut down, a class of essential businesses developed. See, e.g., CDC, GUIDANCE ON THE ESSENTIAL CRITICAL INFRASTRUCTURE WORKFORCE (2020). In executing these lockdown orders, governments deemed certain critical businesses essential to the functioning of society or the economy, thus exempting them from shutdown orders. Employees of these essential businesses continued working even when other businesses closed to comply with lockdown mandates. *COVID-19: Essential Workers in the States*, NAT'L CONF. STATE LEGISLATURES (Jan. 11, 2021), <https://www.ncsl.org/research/labor-and-employment/covid-19-essential-workers-in-the-states.aspx> [<https://perma.cc/25SL-WBJW>].

25. See Aarian Marshall & Gregory Barber, *Coronavirus Exposes Workers to the Risks of the Gig Economy*, WIRED (Mar. 11, 2020, 7:00 AM), <https://www.wired.com/story/coronavirus-exposes-workers-risks-gig-economy> [<https://perma.cc/8MF7-RCBW>] (noting that gig economy workers, such as rideshare drivers, food delivery workers, and pet sitters, are independent contractors who often receive no sick pay, workers' compensation, or health benefits); UCLA LAB. CTR. & SEIU-UNITED HEALTHCARE WORKERS W., WORKER OWNERSHIP, COVID-19, AND THE FUTURE OF THE GIG ECONOMY 2–3 (2020), https://www.labor.ucla.edu/wp-content/uploads/2020/10/UCLA_coop_report_Final-1.pdf [<https://perma.cc/5RGX-ES3J>] (surveying gig economy workers in California and finding that half of those surveyed stopped working because of COVID-19, a significant majority doing so out of fear of contracting the virus while working for companies that did not address their health and safety concerns).

26. Stephen Sawchuk & Catherine Gewertz, *Schools Are Retreating to Remote Learning as COVID-19 Surges. Do They Have to?*, EDUC. WK. (Nov. 17, 2020), <https://www.edweek.org/leadership/schools-are-retreating-to-remote-learning-as-covid-19-surges-do-they-have-to/2020/11> [<https://perma.cc/3D6L-L8YP>].

shifted entirely to remote classes, particularly in higher education.²⁷ Others have pursued hybrid models.²⁸ With the shift away from physical campuses, many students have suffered from disparities due to income and access.²⁹ Learning remotely requires computing devices, fast and steady internet connections, and quiet spaces at home.³⁰ Very young children also have had difficulty fully utilizing online education tools without parents who are present at home during the day, disadvantaging children from low-income families and whose parents are more likely to be working away from the home.³¹ Even in families where one or both parents are at home during the day, many children and parents have faced challenges with remote or hybrid education, with mothers especially facing hardships.³² At the same time, schools have faced budget freezes,³³ and teachers across the

27. Wahab Ali, *Online and Remote Learning in Higher Education Institutes: A Necessity in Light of COVID-19 Pandemic*, 10 HIGHER EDUC. STUD. 16, 16–18 (2020); Sean Gallagher & Jason Palmer, *The Pandemic Pushed Universities Online. The Change Was Long Overdue*, HARV. BUS. REV. (Sept. 29, 2020), <https://hbr.org/2020/09/the-pandemic-pushed-universities-online-the-change-was-long-overdue> [<https://perma.cc/QDX5-7L7H>].

28. Anna North, *Hybrid School Might Be the Worst of Both Worlds*, VOX (Oct. 19, 2020, 9:30 AM), <https://www.vox.com/21515864/covid-hybrid-school-learning-remote-plan-pandemic>.

29. See *Can We Fix the Inequalities Exacerbated by Remote Learning?*, PBS NEWSHOUR (Aug. 29, 2020, 5:05 PM), <https://www.pbs.org/newshour/show/can-we-fix-the-inequities-exacerbated-by-remote-learning> [<https://perma.cc/8A5V-MU4U>] (arguing that students who do not have reliable access to necessary technology suffer greater academic harm due to remote learning and that it is the responsibility of government, alongside schools, to ensure access for all students); Benjamin Herold, *The Disparities in Remote Learning Under Coronavirus (in Charts)*, EDUC. WK. (Apr. 10, 2020), <https://www.edweek.org/technology/the-disparities-in-remote-learning-under-coronavirus-in-charts/2020/04?print=1> [<https://perma.cc/6X6U-Q3L6>] (charting the disadvantages in access to technology and student engagement in schools with higher percentages of low-income students).

30. See *Can We Fix the Inequalities Exacerbated by Remote Learning?*, *supra* note 29.

31. See *id.*

32. Jessica Grose, *America's Mothers Are in Crisis*, N.Y. TIMES (Feb. 4, 2021), <https://www.nytimes.com/2021/02/04/parenting/working-moms-mental-health-coronavirus.html> [<https://perma.cc/275K-76EA>] (examining how the pandemic has particularly impacted mothers by forcing them to leave the workforce, increasing their child care responsibilities, and exacerbating stress).

33. See Valerie Strauss, *K-12 School Leaders Warn of 'Disaster' from Huge Coronavirus-Related Budget Cuts as Layoffs and Furloughs Begin*, WASH. POST (May 8, 2020, 6:00 AM), <https://www.washingtonpost.com/education/2020/05/08/k-12-school-leaders-warn-disaster-huge-coronavirus-related-budget-cuts-layoffs-furloughs-begin> [<https://perma.cc/8GAN-6Z4G>] (detailing state budget cuts that are causing school districts to furlough teachers and reduce services).

nation have contracted COVID-19, and even died from it, due to teaching in person.³⁴

The risks involved with social contact have negatively impacted many other segments of society. For example, many nursing homes have shut down visits, some even sequestering residents in their own rooms, without social contact with other residents or visitors.³⁵ Senior citizens, many of whom already suffered from loneliness and poverty, also lost out on available means of social connection and support.³⁶ Some people with health conditions and disabilities have found it more difficult to seek treatment or support, including disabled children in schools.³⁷ In addition to elderly and disabled people, pregnant and immunocompromised people have also faced greater limitations, as heightened health risks associated with contracting COVID-19 have altered these groups' assessment of the relative danger of gathering with others.³⁸

34. See Laura Ungar & Samantha Young, *'We Have Educators Who Are Dying': Teachers Still Fear COVID-19, but Calls to Open Schools Grow Louder*, USA TODAY (Feb. 7, 2021, 11:29 AM), <https://www.usatoday.com/story/news/education/2021/02/07/reopening-schools-debates-teachers-fear-covid-19/4413729001> [<https://perma.cc/2CP5-UNGD>] (highlighting teachers' demands that districts impose safety measures before resuming in-person classes).

35. See Emily Paulin, *Is Extended Isolation Killing Older Adults in Long-Term Care?*, AARP (Sept. 3, 2020), <https://www.aarp.org/caregiving/health/info-2020/covid-isolation-killing-nursing-home-residents.html> [<https://perma.cc/LY4G-8YPT>] (discussing the impact that pandemic-induced social isolation has had on the mental and physical health of those in long-term-care facilities).

36. See Kara Gavin, *Loneliness Doubled for Older Adults in First Months of COVID-19*, UNIV. MICH. HEALTH LAB (Sept. 14, 2020, 8:00 AM), <https://labblog.uofmhealth.org/rounds/loneliness-doubled-for-older-adults-first-months-of-covid-19> [<https://perma.cc/9FCY-5TCD>] (noting that the older adults who were polled were attempting to reduce social interactions in order to protect their health, but then suffered from the subsequent isolation).

37. See Andrew Pulrang, *How Covid Relief Will Help Disabled People, and What Was Left out*, FORBES (Mar. 11, 2021, 2:08 PM), <https://www.forbes.com/sites/andrewpulang/2021/03/11/how-covid-relief-will-help-disabled-people-and-what-was-left-out/?sh=758512e314fc> [<https://perma.cc/QH9U-ZVK2>] (detailing the challenges for those with disabilities during the pandemic, such as students being unable to receive the assistance of one-on-one aides while schools provided only remote classes).

38. See Gwen Aviles, *As Coronavirus Spreads, Immunocompromised Young People Ask Peers to Keep Them in Mind*, NBC NEWS (Mar. 16, 2020, 3:49 PM), <https://www.nbcnews.com/news/us-news/coronavirus-spreads-immunocompromised-young-people-ask-peers-keep-them-mind-n1160381> [<https://perma.cc/JUS2-PULS>] (focusing on the struggles of individuals who are at higher risk of contracting COVID-19 because they are immunocompromised, despite appearing young and healthy).

While the pandemic has wrought similar harm across the world, every nation has approached pandemic response in different ways, with some nations succeeding in keeping viral spread minimal and others failing continuously—leaving their residents vulnerable to the exponential spread of COVID-19.³⁹ In the United States, lack of a centralized federal plan resulted in a fifty-state approach.⁴⁰ Each state has its own guidelines on shutdowns, coronavirus testing, vaccinations, and more.⁴¹ In the early stages of the pandemic, supplies were critically low. These supplies included personal protective equipment (PPE) used by healthcare providers, as well as masks (to be worn ideally by all people to minimize viral spread) and healthcare equipment like ventilators.⁴² As cases increased, many areas experienced outages of necessary healthcare supplies.⁴³ At various points during the pandemic, different areas ran out of ICU beds or even hospital beds.⁴⁴ Some states and nations even ran low on oxygen.⁴⁵ America's fifty-state

39. See James H. Liu, *Majority World Successes and European and American Failure to Contain COVID-19: Cultural Collectivism and Global Leadership*, 24 *ASIAN J. SOC. PSYCH.* 23, 23–26 (2021).

40. See *Contract Tracing and Other Innovative Technological Responses*, *supra* note 5, at 15–16.

41. *E.g.*, 48 Md. Reg. 255 (Mar. 9, 2021) (updating Maryland's guidelines relating to business capacities and other restrictions during the public health emergency); see Dena Bunis & Jenny Rough, *List of Coronavirus-Related Restrictions in Every State*, AARP (Mar. 19, 2021), <https://www.aarp.org/politics-society/government-elections/info-2020/coronavirus-state-restrictions.html> [<https://perma.cc/A9MV-S5TN>] (compiling a state-by-state list of restrictions related to opening of businesses, use of public spaces, and other issues).

42. Megan L. Ranney et al., *Critical Supply Shortages—The Need for Ventilators and Personal Protective Equipment During the Covid-19 Pandemic*, *NEW ENG. J. MED.*, Apr. 30, 2020, at 1; Erin Schumaker, *How Did the US Come up so Short on PPE?*, ABC NEWS (Apr. 14, 2020, 10:59 AM), <https://abcnews.go.com/Health/us-short-ppe/story?id=70093430> [<https://perma.cc/47E9-QFUM>].

43. See Ranney, *supra* note 42, at 1.

44. Lauren Leatherby et al., *'There's No Place for Them to Go': I.C.U. Beds near Capacity Across U.S.*, *N.Y. TIMES* (Dec. 9, 2020), <https://www.nytimes.com/interactive/2020/12/09/us/covid-hospitals-icu-capacity.html> [<https://perma.cc/2D6Z-JYR7>]; Dan Goldberg, *"Overwhelmed": Hospitals Engulfed by Rebounding Virus*, *POLITICO* (Oct. 16, 2020, 4:30 AM), <https://www.politico.com/news/2020/10/16/pandemic-states-virus-rebound-429753> [<https://perma.cc/UNJ4-D3LJ>].

45. Rae Ellen Bichell & Lauren Weber, *In Los Angeles and Beyond, Oxygen Is the Latest Covid Bottleneck*, *KHN* (Jan. 7, 2021), <https://khn.org/news/article/in-los-angeles-and-beyond-oxygen-is-the-latest-covid-bottleneck> [<https://perma.cc/J7P6-8L5K>]; Fenit Nirappil & William Wan, *Los Angeles Is Running out of Oxygen for Patients as Covid Hospitalizations Hit Record Highs Nationwide*, *WASH. POST* (Jan. 5, 2021, 5:51 PM), <https://www.washingtonpost.com/health/2021/01/05/covid-hospitalizations-los-angeles-oxygen> [<https://perma.cc/CX29-JDB3>].

approach forced states to fend for themselves in the early stages of the pandemic, negotiating on their own and in groups (as pacts) to purchase necessary supplies.⁴⁶

In an unprecedented scientific triumph, pharmaceutical companies rapidly developed vaccines and pursued emergency clinical trials to test the vaccines' efficacy all in less than a year after the pandemic began in earnest.⁴⁷ While the vaccine developments have been promising, the lack of supply has led to nations vying for vaccine doses, with wealthier

46. See, e.g., *Full Remarks: Governor Larry Hogan Announces State of Maryland Acquires 500,000 COVID-19 Tests from South Korea's LabGenomics*, MARYLAND.GOV <https://governor.maryland.gov/2020/04/20/full-remarks-governor-hogan-announces-state-of-maryland-acquires-500000-covid-19-tests-from-south-koreas-labgenomics> [<https://perma.cc/68XU-KPFFK>]; Steve Thompson, *Maryland's Governor Touts His Purchase of Tests from South Korea. Emails Show a U.S. Company Offered Tests at a Lower Price*, WASH. POST (July 17, 2020, 1:56 PM), https://www.washingtonpost.com/local/md-politics/hogan-south-korea-coronavirus-tests/2020/07/16/c0e69ec8-c765-11ea-a99f-3bbdff1af38_story.html [<https://perma.cc/D33U-EX2S>].

47. See, e.g., Jon Cohen, *'Absolutely Remarkable': No One Who Got Moderna's Vaccine in Trial Developed Severe COVID-19*, SCI. MAG. (Nov. 30, 2020, 7:00 AM), <https://www.sciencemag.org/news/2020/11/absolutely-remarkable-no-one-who-got-modernas-vaccine-trial-developed-severe-covid-19> [<https://perma.cc/HSK9-7UAV>] (crediting federal funding for supporting the rapidity of vaccine development); Eric Silberman, *Pfizer Vaccine Shows 94% Effectiveness Against Asymptomatic Transmission of COVID*, ABC NEWS (Mar. 11, 2021, 5:30 PM), <https://abcnews.go.com/Health/pfizer-vaccine-shows-94-effectiveness-asymptomatic-transmission-covid/story?id=76389615> [<https://perma.cc/8KVV-NRGC>] (citing new data that the Pfizer vaccine is effective against asymptomatic transmission). However, global activists have expressed concern that intellectual property protections for the vaccine technology and corporate interests will limit the spread of knowledge about and development of vaccines around the world. Carmen Paun, *Patent Fight Pits Rich Against Poor in Vaccine Race*, POLITICO (Dec. 10, 2020, 10:00 AM), <https://www.politico.com/newsletters/global-pulse/2020/12/10/patent-fight-pits-rich-against-poor-in-vaccine-race-491105> [<https://perma.cc/6S55-QJUE>]. For example, while Oxford University originally planned to release the vaccine specifications in an open-source manner, allowing for other companies and countries to freely copy and create their own versions of the vaccines, the Oxford team later changed its mind and sold the rights to AstraZeneca, reportedly at the urging of Bill Gates. Jay Hancock, *They Pledged to Donate Rights to Their COVID Vaccine, Then Sold Them to Pharma*, KHN (Aug. 25, 2020), <https://khn.org/news/rather-than-give-away-its-covid-vaccine-oxford-makes-a-deal-with-drugmaker> [<https://perma.cc/UVT4-LGGA>]. Here, critics claim that Oxford's decision not to publicize this research has led to a limitation of supply and a lack of access to necessary vaccines. See *id.* (quoting a Harvard Medical School epidemiologist claiming drug manufacturers' receipt of exclusive rights to vaccine research provides no guarantees that they will price vaccines to reasonably ensure broad access).

nations buying most of the available vaccines on contract.⁴⁸ Some countries, particularly China and Russia, have engaged in vaccine diplomacy, sending supplies to nations in need.⁴⁹ Other nations, including Singapore, Portugal, and Iraq, have expressed interest in joining the Gavi COVAX Advance Market Commitment (AMC), which facilitates the collaboration between wealthier nations to provide vaccine doses to eligible low- and middle-income countries.⁵⁰

At the time of writing, the pandemic is still raging, though vaccinations have begun rolling out. As countries vaccinate their populations and reopen businesses, schools, public spaces, and borders, government health authorities are considering, and private entities are developing, “vaccine verification systems” and “immunity passports” to improve the surveillance and suppression of COVID-19 transmission and allow increased access to public spaces and travel.⁵¹ The proliferation of these technologies is just one illustration of privacy norms’ broad shift in deference to public health needs.

B. Contextualizing the Pandemic

The pandemic does not exist in a vacuum. The first humans to contract the virus likely did so in the latter half of the year 2019 (hence

48. Megan Twohey et al., *With First Dibs on Vaccines, Rich Countries Have ‘Cleared the Shelves,’* N.Y. TIMES (Dec. 18, 2020), <https://www.nytimes.com/2020/12/15/us/coronavirus-vaccine-doses-reserved.html> [<https://perma.cc/2HTC-HVN7>].

49. See Jonathan Tennebaum, *China, Russia Steal a Vaccine Diplomacy March*, ASIA TIMES (Feb. 8, 2021), <https://asiatimes.com/2021/02/china-russia-steal-a-vaccine-diplomacy-march> [<https://perma.cc/5J7S-GUFJ>] (highlighting the steps Russia and China have taken to help less-wealthy countries obtain the COVID-19 vaccine doses they need more efficiently).

50. See *92 Low- and Middle-Income Economies Eligible to Get Access to COVID-19 Vaccines Through Gavi COVAX AMC*, GAVI (Aug. 21, 2020), <https://www.gavi.org/news/media-room/92-low-middle-income-economies-eligible-access-covid-19-vaccines-gavi-covax-amc> [<https://perma.cc/5RMR-Q2N6>] (discussing the COVAX AMC and the ninety-two nations with Gross National Income per capita under \$400 that will be eligible to receive vaccines through the COVAX program).

51. Baobao Zhang et al., *Building Robust and Ethical Vaccination Verification Systems*, BROOKINGS TECHSTREAM (Jan. 26, 2021), <https://www.brookings.edu/techstream/building-robust-and-ethical-vaccination-verification-systems/>; see also *What Is a COVID-19 Immunity Passport—and Who Will Get One? Here’s What Experts Say*, HEALTH (Dec. 10, 2020), <https://www.health.com/condition/infectious-diseases/coronavirus/covid-immunity-passport> [<https://perma.cc/86JU-KU2G>] (discussing the history, benefits, challenges, and applications of immunity passports); Mohapatra, *supra* note 13 (defining “immunity passports” and “vaccine passports” and explaining why the latter have been a greater focus in combatting the COVID-19 pandemic).

the naming of COVID-19 for this novel coronavirus).⁵² To understand the state of privacy law at the time of this pandemic, and to conceptualize solutions for protecting privacy in a time of pandemic, we also must recognize the relevant social, political, economic, and environmental factors that frame this particular point in time.

This Article will not attempt a comprehensive summary of the entirety of the years 2019 to present. Similarly, as an American law professor writing in an American law review, I recognize that my perspective will be limited to an American-centric view of what are really global issues. Instead, I will introduce only a few social, political, economic, and environmental factors I find particularly salient for our understanding of privacy in this time of pandemic. Understanding the greater context surrounding the pandemic can allow us to develop solutions to problems, including privacy problems, that reflect the world as it is, instead of creating siloed solutions that do not work.

Future historians studying this particular moment in time will likely say that the story of America in 2020 and into 2021 consisted of three main events: (1) the pandemic; (2) the Black Lives Matter movement and mass protests against racism; and (3) the election and political environment of 2020. Of course, many other things happened as well. But these are perhaps the three events without which you cannot understand the conditions of America in the time of pandemic.

The pandemic exposed several of the structural inequalities plaguing America and the world.⁵³ But these social and political problems had existed long before. America has suffered from the disease of racism and xenophobia since its earliest days. The same nation that can rightfully boast of being the world's oldest democracy is also the same nation built on the blood of enslaved Black people, the tears of Indigenous people driven from their lands, and the mistreatment of immigrants from all around the world.

The inequalities that have historically existed in America are important to understand when discussing privacy, as these tensions have played a role in shaping the right to privacy. The right to privacy developed in American jurisprudence through a patchwork of theories, including constitutional protections (privacy as a civil liberty

52. See Michelle L. Holshue et al., *First Case of 2019 Novel Coronavirus in the United States*, 382 NEW ENG. J. MED. 929, 929 (2020) (recounting that the novel coronavirus was first identified in a small group of people connected to the Huanan Seafood Wholesale Market in Wuhan, China in December 2019).

53. See *supra* Section I.A (discussing the disproportionate impacts that the coronavirus has wrought on certain populations).

borne out of the penumbra of constitutional protections)⁵⁴ as well as privacy in a civil context, primarily the “right to be let alone” as conceived by Samuel Warren and Louis Brandeis in their landmark article.⁵⁵ These constitutional protections and tort protections have never been awarded equally to all Americans. Privacy rights, like other substantive rights, are difficult for most individuals to safeguard; those traditionally marginalized by markets and legal systems have an even higher burden in both understanding and enforcing their privacy rights.⁵⁶ Privacy, however, has not only been a civil liberty or a tort interest; privacy is also core to civil rights and indeed can be thought of as a civil right in and of itself.⁵⁷

In the summer of 2020, mass protests erupted across America related to the Black Lives Matter movement. People protested the killing of George Floyd, an unarmed Black man killed by police in an unprovoked attack.⁵⁸ Millions of people worldwide participated in these protests, potentially the largest mass protests in American history.⁵⁹

54. See generally STEPHAN P. MULLIGAN ET AL., CONG. RSCH. SERV., R45631, DATA PROTECTION LAW: AN OVERVIEW 5–7 (2019) (outlining the development of the right to privacy as a constitutional right in U.S. jurisprudence).

55. Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 193 (1890).

56. See Matt Reichel, *Race, Class, and Privacy: A Critical Historical Review*, 11 INT’L J. COMM’N 4757, 4757–58, 4560 (2017) (“[T]he ‘architecture’ in which individuals interact with technology is not neutral: It is, instead, reflective of extant societal prejudices and power asymmetries.”); Mary Madden et al., *Privacy, Poverty, and Big Data: A Matrix of Vulnerabilities for Poor Americans*, 95 WASH. U. L. REV. 1, 58–64 (2017) (summarizing the privacy vulnerabilities of low-income communities in the United States); MARY MADDEN, DATA & SOC’Y RSCH. INST., PRIVACY, SECURITY, AND DIGITAL INEQUALITY: HOW TECHNOLOGY EXPERIENCES AND RESOURCES VARY BY SOCIOECONOMIC STATUS, RACE, AND ETHNICITY 2, 16, 17 (2017), https://datasociety.net/wp-content/uploads/2017/09/DataAndSociety_PrivacySecurityandDigitalInequality.pdf [<https://perma.cc/E3RK-43KF>] (surveying the digital privacy inequalities of racial, ethnic, and socioeconomic minorities).

57. Alvaro M. Bedoya, *Privacy as a Civil Right*, 50 N.M. L. REV. 301, 306 (2020).

58. Amy Forliti, *Prosecutors: Officer Was on Floyd’s Neck for About 9 Minutes*, AP NEWS (Mar. 4, 2021), <https://apnews.com/article/trials-derek-chauvin-minneapolis-racial-injustice-060f6e9e8b7079505a1b096a68311c2b> (reporting on the criminal charges brought against the ex-police officer who killed George Floyd by kneeling on his neck until he stopped breathing).

59. See Larry Buchanan et al., *Black Lives Matter May Be the Largest Movement in U.S. History*, N.Y. TIMES (July 3, 2020), <https://www.nytimes.com/interactive/2020/07/03/us/george-floyd-protests-crowd-size.html> [<https://perma.cc/FY38-BHD6>] (approximating that fifteen to twenty-six million people protested George Floyd’s death in the United States between May 25, when the crime occurred, and July 3, 2020).

At the same time as the Black Lives Matter movement spurred new understandings of race relations in America, other social phenomena unfolded. Although the World Health Organization (WHO) has recognized the risk of stigmatization in associating an infectious disease with a particular geographical location or group of people,⁶⁰ WHO guidelines did not stop many from calling the novel coronavirus the “Wuhan Virus” once news broke that the virus likely originated in Wuhan, China.⁶¹ 2020 saw a great increase in hate crimes against Asians and Asian Americans in the United States that has continued and intensive since.⁶² At the same time, America still held thousands of migrants and refugees in border detention camps, including hundreds of children who were kept separated from their families—some children even reportedly adopted into new families against the will of their families of origin.⁶³ Furthermore, America saw a rise in anti-Semitism, linked to the rise in alt-right white nationalists spurred on by President Trump.⁶⁴ All the while, America was still in the throes of anti-Muslim sentiment—a holdover from the Islamophobic reactions

60. See, e.g., WORLD HEALTH ORG., WORLD HEALTH ORGANIZATION BEST PRACTICES FOR THE NAMING OF NEW HUMAN INFECTIOUS DISEASES (2015) (detailing the best practices for naming a new disease to avoid offending or stigmatizing any group).

61. After use of the term “Wuhan Virus” became common, the World Health Organization released a statement about how to properly refer to the virus. Tedros Adhanom Ghebreyesus, Director-General, World Health Org., Remarks at the Media Briefing on 2019-nCoV (Feb. 11, 2020), <https://www.who.int/director-general/speeches/detail/who-director-general-s-remarks-at-the-media-briefing-on-2019-ncov-on-11-february-2020> [<https://perma.cc/6ZEV-3FXC>].

62. See Madeleine Aggeler, *The U.S. Is Seeing a Massive Spike in Anti-Asian Hate Crimes*, CUT (Feb. 10, 2021), <https://www.thecut.com/2021/02/the-us-is-seeing-a-massive-spike-in-anti-asian-hate-crimes.html> (reporting that the United States has seen a 1900% increase in hate crimes against Asians and Asian-Americans in the past year in New York City alone); Christopher Johnson & Tara John, *Atlanta Spa Attacks Shine a Light on Anti-Asian Hate Crimes Around the World*, CNN (Mar. 22, 2021), <https://www.cnn.com/2021/03/21/world/anti-asian-hate-crime-intl/index.html> (describing how the shooting of six Asian women in Atlanta brought attention to the increase of attacks against Asians throughout the world).

63. See, e.g., Garance Burke & Martha Mendoza, *AP Investigation: Deported Parents May Lose Kids to Adoption*, AP NEWS (Oct. 9, 2018), <https://apnews.com/article/97b06cede0c149c492bf25a48cb6c26f> (chronicling the anguishing story of Araceli Ramos Bonilla, who nearly lost her two-year-old daughter, Alexa, after U.S. immigration authorities deported Ramos).

64. See James Cook, *US Election: Trump and the Rise of the Alt-Right*, BBC NEWS (Nov. 7, 2016), <https://www.bbc.com/news/election-us-2016-37899026> [<https://perma.cc/JE7Q-XBGU>] (describing how then-presidential-candidate Donald Trump’s rhetoric during his 2016 campaign energized the alt-right and its use of sexist, racist, and anti-Semitic language).

to the terrorist attacks of September 11, 2001, resulting in hate crimes against not only Muslim Americans but also other South Asian and Middle Eastern Americans.⁶⁵

The exposure of and attention to racism and inequality of minority groups in 2020 was a watershed event for America, one that is an important factor to consider in understanding the pandemic's impact. For example, if not for the Black Lives Matter protests, it is possible that companies like ExamSoft, a remote testing software company, would not have been held to account for using tools that underperformed for people with darker skin tones.⁶⁶ It is possible that newspapers would not have so extensively covered the way the pandemic disproportionately affected Black, Latinx, and other communities of color.⁶⁷ If not for the Black Lives Matter movement and related demonstrations, it is possible that we might not have seen the solutions that have developed since then to address inequities in COVID-19 response and in other facets of society.⁶⁸ Finally, the increased attention to policing and the

65. See Clare Foran, *Donald Trump and the Rise of Anti-Muslim Violence*, ATL. (Sept. 22, 2016), <https://www.theatlantic.com/politics/archive/2016/09/trump-muslims-islamophobia-hate-crime/500840> [<https://perma.cc/6ACW-ZS2S>] (citing research suggesting that Donald Trump's anti-Muslim rhetoric contributed to a spike in hate crimes).

66. See Khari Johnson, *ExamSoft's Remote Bar Exam Sparks Privacy and Facial Recognition Concerns*, VENTUREBEAT (Sept. 29, 2020, 9:07 AM), <https://venturebeat.com/2020/09/29/examsofts-remote-bar-exam-sparks-privacy-and-facial-recognition-concerns> (referencing the ACLU's challenge to the California State Bar's use of remote testing software for its annual bar examination because it "threaten[ed] to further entrench racial and economic inequities" within the legal profession).

67. Isaac Stanley-Becker & Lena H. Sun, *Covid-19 Is Devastating Communities of Color. Can Vaccines Counter Racial Inequity?*, WASH. POST (Dec. 18, 2020, 1:00 PM), <https://www.washingtonpost.com/health/2020/12/18/covid-vaccine-racial-equity> [<https://perma.cc/QYQ3-MGT5>]; Richard A. Opiel et al., *The Fullest Look yet at the Racial Inequity of Coronavirus*, N.Y. TIMES (July 5, 2020), <https://www.nytimes.com/interactive/2020/07/05/us/coronavirus-latinos-african-americans-cdc-data.html> [<https://perma.cc/2CR4-2YZ8>]; Rong-Gong Lin II, *Virus' Threat Deadlier for Some; L.A. County's Black and Latino Groups Have Double the Mortality Rate of White Residents*, L.A. TIMES, June 27, 2020, at B.1.

68. See Exec. Order No. 13,995, 86 Fed. Reg. 7193 (Jan. 26, 2021) (addressing the "pervasive health and social inequities" that have surfaced as a result of the pandemic); see also Ariana Eunjung Cha, *Biden Makes Tackling Racial, Ethnic Inequities During Coronavirus Pandemic a Priority*, WASH. POST (Dec. 15, 2020), <https://www.washingtonpost.com/politics/2020/12/15/biden-covid-racial-inequities> [<https://perma.cc/M4PR-W2YH>] (discussing Marcella Nunez-Smith's appointment as one of three co-chairs to lead President Biden's COVID-19 advisory board in ensuring an equitable pandemic response).

inequalities within the criminal justice system⁶⁹ may have also influenced people in America to further understand why privacy violations by the government may create disparate harms for people from marginalized populations, which may in turn impact how we understand privacy in public health and pandemic response.

In addition to its overlap with an ongoing racial justice movement, the pandemic found America in a time of political crisis, with a President whom many believed to be incompetent at best and existentially dangerous to democracy at worst.⁷⁰ Political commentators attributed Donald Trump's upset victory in 2016 to many factors, including years of economic recession that had left many feeling the need to turn to nationalistic rhetoric and an "America First" President.⁷¹ In 2020, Americans had already suffered four years of democratic erosion, a period of "constitutional rot"⁷² with peak political polarization and a rising surge in authoritarian ideals perpetuated by many political

69. See LEN ENGEL ET AL., NAT'L COMM'N ON COVID-19 & CRIM. JUST, RACIAL DISPARITIES AND COVID-19 4–10 (2020) (explaining how COVID-19 has exacerbated existing issues with racial disparities in policing and the justice system); CRYSTAL WATSON ET AL., JOHNS HOPKINS UNIV., COVID-19 AND THE US CRIMINAL JUSTICE SYSTEM: EVIDENCE FOR PUBLIC HEALTH MEASURES TO REDUCE RISK 11–12 (2020) (detailing the high rates of COVID-19 infection in incarcerated individuals and the lack of resources in carceral facilities).

70. Cf. *How Popular Is Donald Trump?*, FIVETHIRTYEIGHT (Jan. 20, 2021, 11:57 AM), https://projects.fivethirtyeight.com/trump-approval-ratings/?ex_cid=irpromo [<https://perma.cc/2CL9-BMWA>] (showing President Trump's 53.5% disapproval rate in January 2020); *Public's Mood Turns Grim; Trump Trails Biden on Most Personal Traits, Major Issues*, PEW RSCH. CTR. (June 30, 2020), <https://www.pewresearch.org/politics/2020/06/30/publics-mood-turns-grim-trump-trails-biden-on-most-personal-traits-major-issues> [<https://perma.cc/CQP3-36W4>] ("[T]he share of the public saying they are satisfied with the way things are going in the country has plummeted from 31% in April, during the early weeks of the coronavirus outbreak, to just 12% today.").

71. See Jennifer Mercieca, *A Field Guide to Trump's Dangerous Rhetoric*, CONVERSATION (June 19, 2020, 8:09 AM), <https://theconversation.com/a-field-guide-to-trumps-dangerous-rhetoric-139531> [<https://perma.cc/V6X4-PQ59>] (describing President Trump's rhetorical approach as one portraying him as the American hero—"the apotheosis of American exceptionalism"); see also Lily Rothman, *The Long History Behind Donald Trump's 'America First' Foreign Policy*, TIME (Mar. 28, 2016, 6:14 PM), <https://time.com/4273812/america-first-donald-trump-history> [<https://perma.cc/4TSC-T4TM>] (noting that President Trump presented his Administration as one that would "prevent other nations from taking advantage of the United States"); Donald J. Trump, President of the United States of America, Inaugural Address (Jan. 20, 2017) ("From this day forward, a new vision will govern our land. From this day forward, it's going to be only America first.").

72. Jack M. Balkin, *Constitutional Crisis and Constitutional Rot*, 77 MD. L. REV. 147, 155, 157–58 (2017).

leaders.⁷³ The Trump Administration broke constitutional norm after constitutional norm.⁷⁴ At the same time, far-right, nationalistic, anti-democratic political forces gained or maintained presence in many nations, including France, Germany, and the United Kingdom.⁷⁵

As the pandemic raged through the United States, so did an “infodemic”: an epidemic of misinformation and disinformation spreading through social media. Thousands of Americans fell prey to disinformation and to radicalization, turning to the QAnon mass delusion and to darker parts of the internet dedicated to organizing people who shared a white-supremacist, proto-authoritarian agenda.⁷⁶ President Trump supported much of this political fervor, which led to the January 6, 2021 armed attack on the U.S. Capitol, in which hundreds of Trump supporters stormed the Capitol, breached the gates, and wrought death and destruction.⁷⁷ The attempted insurrection resulted

73. See James A. Gardner, *Illiberalism and Authoritarianism in the American States*, 70 AM. U. L. REV. 829, 863–67 (2021) (arguing that since 2016, there has been a “grafting of authoritarian behavior” onto the Republican Party in the United States); PEW RSCH. CTR., PARTISAN ANTI-PATHY: MORE INTENSE, MORE PERSONAL 1 (2019), <https://www.pewresearch.org/politics/wp-content/uploads/sites/4/2019/10/10-10-19-Parties-report.pdf> [<https://perma.cc/6K8W-87X6>] (surveying Americans’ partisan opinions and finding deepening division, animosity, and political polarization).

74. See Balkin, *supra* note 72, at 147, 149, 158–59 (discussing President Trump’s disruption of democratic norms as a form of “constitutional rot”); Dawn Johnsen, *Toward Restoring Rule-of-Law Norms*, 97 TEX. L. REV. 1205, 1205–07 (2019) (claiming that President Trump’s “extraordinary misconduct” contributed to the corrosion of constitutional norms); Neil S. Siegel, *Political Norms, Constitutional Conventions, and President Donald Trump*, 93 IND. L.J. 177, 177–78 (2018) (describing Trump’s “disregard of [all] political norms” as the most dangerous aspect of his conduct in office).

75. See *Europe and Right-Wing Nationalism: A Country-by-Country Guide*, BBC NEWS (Nov. 13, 2019), <https://www.bbc.com/news/world-europe-36130006>.

76. See Shadi Shahsavari et al., *Conspiracy in the Time of Corona: Automatic Detection of Emerging COVID-19 Conspiracy Theories in Social Media and the News*, 3 J. COMPUTATIONAL SOC. SCI. 279, 280, 296, 307 (2020) (discussing how misinformation around the pandemic exacerbated pre-existing conspiracy theories like QAnon); see also Samara Lynn, *How the Far-Right Harnessed Tech in the Lead-up to the Capitol Riot*, ABC NEWS, (Jan. 28, 2021, 1:48 PM), <https://abcnews.go.com/Politics/harnessed-tech-lead-capitol-riot/story?id=74761628> [<https://perma.cc/6PJ8-MAU2>] (“The right-wing corners of the internet, which include some of Trump’s most ardent supporters, white supremacists and militia members, have harnessed technology to amplify their ideology . . .”).

77. See Shelly Tan et al., *How One of America’s Ugliest Days Unraveled Inside and Outside the Capitol*, WASH. POST (Jan. 9, 2021), <https://www.washingtonpost.com/nation/interactive/2021/capitol-insurrection-visual-timeline/> [<https://perma.cc/J3RS-6RG6>]; Ryan Goodman et al., *Incitement Timeline: Year of Trump’s Actions Leading to the Attack on the Capitol*, JUST SEC. (Jan. 11, 2021), <https://www.justsecurity.org/74138/incitement-timeline-year-of-trumps-actions-leading-to-the-attack-on-the-capitol>

from political division that reached a height in the 2020 election, particularly after Trump's team continually contested the lawful election of a new President, Joe Biden, and a new political makeup with Democrats holding the executive and both houses of Congress.⁷⁸

The infodemic, and potentially the rise of Donald Trump and the global turn to authoritarianism, can be linked to the rising power of technology platforms, including social media companies like Facebook, YouTube, and Twitter.⁷⁹ Thus, despite the important role technology plays in pandemic response, increased skepticism towards the politicization of tech platforms has likely taken a toll on the public's willingness to trust corporations with their digital privacy.⁸⁰

The world faced a shift in global powers with the rise of China,⁸¹ rapid growth in the Global South,⁸² and a technology-fueled future. As world economies turn to technology, we see a greater increase in use of data and privacy-violative technologies, including the rise of the Internet of Things and connected technologies, as well as AI and machine learning, with significant impacts on privacy worldwide. And

[<https://perma.cc/YM7B-3QEH>] (providing a timeline of the events that unfolded at the Capitol on January 6, 2021).

78. Goodman et al., *supra* note 77.

79. See, e.g., Joseph Thai, *Facebook's Speech Code and Policies: How They Suppress Speech and Distort Democratic Deliberation*, 69 AM. U. L. REV. 1641, 1643, 1645 (2020) (discussing the enormous impact Facebook's speech policies have on billions of people, increasing the risk of disinformation exposure); JANNA ANDERSON & LEE RAINIE, PEW RSCH. CTR., *MANY TECH EXPERTS SAY DIGITAL DISRUPTION WILL HURT DEMOCRACY* 3 (2020), https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2020/02/PI_2020.02.21_future-democracy_REPORT.pdf [<https://perma.cc/DZ6Q-XM5V>] ("Over the past four years—a time of the Brexit decision in the United Kingdom, the American presidential election and a variety of other elections—the digital disruption of democracy has been a leading concern.").

80. Cf. Lee Rainie, *Americans' Complicated Feelings About Social Media in an Era of Privacy Concerns*, PEW RSCH. CTR. (Mar. 27, 2018), <https://www.pewresearch.org/fact-tank/2018/03/27/americans-complicated-feelings-about-social-media-in-an-era-of-privacy-concerns> [<https://perma.cc/3MDV-D8HU>] (reporting that 91% of Americans believe that they have no control over how third parties collect and utilize their personal data).

81. See Yen Nee Lee, *Here Are 4 Charts that Show China's Rise as a Global Economic Superpower*, CNBC (Sept. 23, 2019, 9:43 PM), <https://www.cnbc.com/2019/09/24/how-much-chinas-economy-has-grown-over-the-last-70-years.html>

[<https://perma.cc/W9LX-6E4H>] (noting that China has been the world's second largest economy behind the United States since 2010, when China surpassed Japan).

82. UNITED NATIONS CONF. ON TRADE & DEV., *FORGING A PATH BEYOND BORDERS: THE GLOBAL SOUTH* 4 (2018) ("The [Global] South's contribution to growth of world trade reached about 50% in the 2000s.").

behind all of this is a global climate crisis worsening by the day.⁸³ Indeed, some theorize that climate change was one of the factors that led to the COVID-19 pandemic and will lead to more pandemics in the near future.⁸⁴

Understanding this maelstrom of social ills is crucial to contextualize the story of privacy during a pandemic. If we do not recognize the social and political factors surrounding the United States and the world during this time of pandemic, we cannot truly understand why it is that the pandemic affected the country and world in the ways that it did, nor can we understand the context behind the specific technology and public health responses that developed, resulting in impacts on privacy. In evaluating our responses to privacy in a pandemic, any new proposals for solutions must account for the greater social and political context to be relevant and useful.

II. PRIVACY IN THE PANDEMIC ERA

How can we begin to understand privacy in a pandemic? In a prior work, I mapped out the terrain of privacy issues that have arisen during this pandemic.⁸⁵ Here, I will highlight the most salient developments in both public health responses and technological responses I believe to be important in framing post-pandemic privacy law, as well as the key social norms that we have seen change or shape our understandings of privacy in this time.

A. *The Public Health Response and Privacy*

Public health responses to the coronavirus pandemic have necessitated an astronomical increase in collection of not only health-related data, but also other personal data as well.⁸⁶ Public health initiatives like coronavirus testing, contact tracing (both manual and digital), vaccine verification, and telemedicine and telehealth require health and other information

83. Henry Fountain, *A World Speeding 'Dangerously Close' to a Tipping Point*, N.Y. TIMES, Dec. 5, 2019, at A10 (describing climate change's acceleration as "more urgent than ever").

84. See Jeff Goodell, *How Climate Change Is Ushering in a New Pandemic Era*, ROLLING STONE (Dec. 7, 2020, 7:00 AM), <https://www.rollingstone.com/culture/culture-features/climate-change-risks-infectious-diseases-covid-19-ebola-dengue-1098923> [<https://perma.cc/P73Z-6EEC>] (explaining that climate change is one of the main reasons for "this new era of pandemics" because it is causing more animals to migrate and interact with other animals and humans—at a higher rate and while carrying diseases—in a way they never have before).

85. See Li, *supra* note 1, at 7.

86. *Id.* at 5, 7.

from individuals at massive scale.⁸⁷ We have also seen greater use of technology in healthcare, including medical AI used for triage, and even healthcare robots.⁸⁸

While data collection has grown, however, lacking access to data has caused issues for pandemic management and response. In a sense, privacy law restrictions may have hampered some public health pandemic responses. For example, many states did not publish data on PPE supply, available hospital beds, coronavirus cases, coronavirus-related deaths, and more.⁸⁹ Additionally, the federal government concealed COVID-19 data at a national level under Trump's leadership.⁹⁰ Indeed, in many cases, the White House held the CDC back from sharing data that could have helped the public.⁹¹ Similarly, restrictions on data sharing and cooperation may have limited the efficacy of some public health responses, including digital contact tracing apps. For example, many contact tracing apps did not sync with each other, creating an interoperability problem that prevented a fully national rollout of digital contact tracing.⁹²

87. Robert A. Fahey & Airo Hino, *COVID-19, Digital Privacy, and the Social Limits on Data-Focused Public Health Responses*, 55 INT'L J. INFO. MGNT 1, 1–2 (2020).

88. Li, *supra* note 1, at 5.

89. See Allan Smith, *'I'm Looking for the Truth': States Face Criticism for COVID-19 Data Cover-Ups*, NBC NEWS (May 25, 2020, 6:00 AM), <https://www.nbcnews.com/politics/politics-news/i-m-looking-truth-states-face-criticism-covid-19-data-n1202086> [<https://perma.cc/4LZ6-HSKY>] (noting discrepancies between states' reported COVID-related deaths and the actual number of COVID-related deaths, which is "almost certainly" higher).

90. See Michael Halpern, *White House Hides COVID-19 Data, Will Make the Pandemic Even Worse*, UNION CONCERNED SCIENTISTS (July 16, 2020, 5:35 PM), <https://blog.ucsusa.org/michael-halpern/white-house-hides-covid-19-data-will-make-the-pandemic-even-worse> [<https://perma.cc/7NMJ-2S45>] (describing Trump's orders to the Centers for Disease Control and Prevention (CDC) to stop collecting data as an action that would "sabotage[]" the United States' ability to slow the spread of the coronavirus).

91. See Jason Dearen et al., *White House Puts 'Political' at CDC to Try to Control Info*, AP NEWS (Oct. 16, 2020), <https://apnews.com/article/election-2020-virus-outbreak-pandemics-public-health-new-york-e321f4c9098b4db4dd6b1eda76a5179e?s=03> (reporting on the appointment of CDC employees to "control the information" released by the CDC to "paint a positive outlook" on the pandemic, an effort that was "at odds with the scientific evidence").

92. See Tiffany C. Li, *Even the Best Contact Tracing App Needs a National COVID Plan to Work*, MSNBC (Oct. 22, 2020, 12:55 PM), <https://www.msnbc.com/opinion/even-best-contact-tracing-app-needs-national-covid-plan-work-n1244176> [<https://perma.cc/J8TC-F58R>] (articulating the limitations to contact tracing applications that are incompatible with other states' contact tracing applications).

The actors who collect, share, use, and access health-related data are a combination of public actors and private actors, traditional healthcare institutions and others.⁹³ This is important to consider because many of our privacy and health privacy laws target only specific types of entities or institutions.⁹⁴ The Health Insurance Portability and Accountability Act of 1996⁹⁵ (HIPAA), for example, protects health information transmitted from or to a covered entity or its business associate.⁹⁶ In practice, this might not actually cover entities like a private company that runs a contact tracing app.⁹⁷

A long history of public health research has led to the developments we have seen in terms of public health responses for this pandemic.⁹⁸ However, there have been some changes, including new public health responses as well as traditional public health responses conducted at greater scale and speed, or by different actors than those previously involved.⁹⁹ For example, contact tracing has been a widely accepted practice in public health for epidemic response for decades.¹⁰⁰

93. U.S. DEP'T HEALTH & HUM. SERVS., SUMMARY OF THE HIPAA PRIVACY RULE 1–2 (last revised May 2003), <https://www.hhs.gov/sites/default/files/privacysummary.pdf> [<https://perma.cc/9AUC-JU3A>]; see also 45 C.F.R. § 160.103 (2018) (discussing the definition of “business associate” as a “covered entity” under HIPAA).

94. See *Evolution of Healthcare Privacy*, *supra* note 9, at 2–3 n.11 (explaining HIPAA’s definition of “covered entit[ies]” in its Privacy Rule). See generally Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191, 110 Stat. 1936 (1996).

95. Pub. L. No. 104-191, 110 Stat. 1936 (1996) (codified in scattered sections of 18, 26, 29, and 42 U.S.C.).

96. 45 C.F.R. § 160.103.

97. See, e.g., Carmel Shachar, *Protecting Privacy in Digital Contact Tracing for COVID-19: Avoiding a Regulatory Patchwork*, HEALTH AFF. BLOG (May 19, 2020), <https://www.healthaffairs.org/doi/10.1377/hblog20200515.190582/full> [<https://perma.cc/UG4K-UHM4>] (noting that companies like Google and Apple are not considered a covered entity under HIPAA and, therefore, HIPAA’s regulations do not apply to any contact tracing applications they develop).

98. See Andis Robeznieks, *COVID-19 Is Transforming Public Health. It’s Not the First Time*, AM. MED. ASS’N (Nov. 20, 2020), <https://www.ama-assn.org/delivering-care/health-equity/covid-19-transforming-public-health-it-s-not-first-time> [<https://perma.cc/8MMP-BYTH>] (describing three major revolutions in public health since the 1918 influenza pandemic).

99. See U.S. DEP'T HEALTH & HUM. SERVS., PUBLIC HEALTH EMERGENCY RESPONSE: A GUIDE FOR LEADERS AND RESPONDERS 6, 15–17 (2007) (depicting traditional public health response protocol that remains relevant in modern times).

100. See Amy Lauren Fairchild et al., *Contact Tracing’s Long, Turbulent History Holds Lessons for COVID-19*, CONVERSATION (July 16, 2020, 8:15 AM), <https://theconversation.com/contact-tracings-long-turbulent-history-holds-lessons-for-covid-19-142511> [<https://perma.cc/BN9D-D5WP>] (“[C]ontact tracing has been a staple of infectious disease control since the 1920s.”).

However, during the COVID-19 pandemic, contact tracing was done at great scale and speed, globally.¹⁰¹ Additionally, while traditional contact tracing relies on human effort in identifying and tracing contacts, this pandemic saw a wave of digital contact tracing applications, which supplanted human (or manual) contact tracing efforts.¹⁰² While some public health responses, like contact tracing, may have been traditional methods pursued in new or different ways, other public health responses use methods and technology that are new themselves. Medical AI and healthcare robots, for example, are both relatively new.¹⁰³ Use of technology to respond to the pandemic—whether based on traditional or new concepts—has exposed gaps in existing privacy law. Modern privacy laws largely do not adequately protect the privacy of individuals given the development of new technologies like medical AI or the increased and digitized use of traditional public health responses like contact tracing.

B. Privacy Impacts Beyond Public Health Response

In addition to public health responses related to the COVID-19 pandemic—many of which have involved technology and posed privacy concerns—a wave of new technological developments, new uses of existing technology, and intrusion on privacy has occurred in response to other pressures of the pandemic.

First, workplace surveillance—both for remote and in-person workers—has increased substantially. In-person workers have been subject to privacy-violating initiatives such as temperature checks at the doors of warehouses.¹⁰⁴ Remote work surveillance has included “tattleware”

101. See generally Washington & Rhue, *supra* note 13 (describing digital contact tracing, which has allowed contact tracing to provide more information quicker, though not without limitations).

102. See generally *id.*

103. See NCS, *AI-Powered Solutions in Tackling COVID-19 and Beyond*, HEALTHCARE IT NEWS (Dec. 14, 2020, 9:27 PM), <https://www.healthcareitnews.com/news/asia-pacific/ai-powered-solutions-tackling-covid-19-and-beyond> [<https://perma.cc/Z9U6-WUNA>] (describing how recent technological advances in AI may serve as a solution to COVID-19).

104. Justine Phillips et al., *Employee Privacy Forecast: Temperature Checks*, SHEPPARD MULLIN LAB. & EMP. L. BLOG (Mar. 25, 2020), <https://www.laboremploymentlawblog.com/2020/03/articles/coronavirus/employee-privacy-forecast-temperature-checks/#:~:text=like> [<https://perma.cc/2QVC-BJQA>]; David J. Oberly, *COVID-19 Employee Temperature Screening: Key Workplace Privacy Considerations for Employers*, CINCINNATI BAR ASS'N (July 15, 2020), <https://www.blankrome.com/publications/covid-19-employee-temperature-screening-key-workplace-privacy-considerations-employers> [<https://perma.cc/39KC-KC2U>].

technologies that allow employers to spy on and record employees' activities on company devices or websites.¹⁰⁵ The shift to remote work has also created an increase in usage of remote-connected websites and apps, like Zoom, Slack, Google Drive, Dropbox, and more.¹⁰⁶

The pandemic has also changed the way privacy is handled in the education sector. Students venturing on campus now have to accept more privacy incursions related to health measures. For example, many schools require students to report their medical symptoms and health status daily or at least on the days they visit campus.¹⁰⁷ Students learning online have to accept the privacy practices of every remote technology that schools insist on using.¹⁰⁸ While some of these education sites and apps may have strong privacy protections in place,

105. Bobby Allyn, *Your Boss Is Watching You: Work-from-Home Boom Leads to More Surveillance*, NPR (May 13, 2020, 5:00 AM), <https://www.npr.org/2020/05/13/854014403/your-boss-is-watching-you-work-from-home-boom-leads-to-more-surveillance> [https://perma.cc/2UZ6-JT28]; see Ashleigh Webber, *PwC Facial Recognition Tool Criticised for Home Working Privacy Invasion*, PERS. TODAY (June 16, 2020), <https://www.personneltoday.com/hr/pwc-facial-recognition-tool-criticised-for-home-working-privacy-invasion> [https://perma.cc/R6YY-HESL] (detailing PwC's implementation of facial recognition software to record when employees are away from their computer screens while working from home).

106. John Case, *Zoom, Microsoft Teams, and Slack Have Exploded Due to the COVID-19 Pandemic. Can They Hold onto This Growth?*, GLG (Apr. 1, 2020), <https://glginsights.com/articles/zoom-microsoft-teams-and-slack-have-exploded-due-to-the-covid-19-pandemic-can-they-hold-onto-this-growth> [https://perma.cc/ND6X-WRKR]; Yevgeniy Sverdlik, *How Zoom, Netflix, and Dropbox Are Staying Online During the Pandemic*, DATA CTR. KNOWLEDGE (Mar. 26, 2020), <https://www.datacenterknowledge.com/uptime/how-zoom-netflix-and-dropbox-are-staying-online-during-pandemic>; cf. Duncan Riley, *Coronavirus Pandemic Drives Huge Demand for Google Classroom App*, SILICONANGLE (Mar. 29, 2020), <https://siliconangle.com/2020/03/29/coronavirus-pandemic-drives-huge-demand-google-classroom-app> [https://perma.cc/8ED3-H4LQ] (explaining that Google Classroom includes other Google services like Google Drive, among others).

107. See, e.g., Jesse Kirsch, *Elmhurst School District 205 Plans to Saliva Test Students; Some Parents Question if It's Legal*, ABC7 CHI. (Feb. 25, 2021, 8:43 PM), <https://abc7chicago.com/saliva-test-elmhurst-schools-district-205-covid/10371249> [https://perma.cc/RC7D-GH4Y] (surveying a Chicago school district's efforts to reopen schools by performing saliva tests on students despite parents' belief that such a measure is "unethical and illegal"); *FAQ—Health & Safety*, AM. U. (last visited May 14, 2021), <https://www.american.edu/coronavirus/faq-health-and-safety.cfm#health4> (providing one university's daily self-screening tool that all individuals must submit prior to entering the campus premises).

108. Christina Caron, *How to Protect Your Family's Privacy During Remote Learning*, N.Y. TIMES (Aug. 21, 2020), <https://www.nytimes.com/2020/08/20/parenting/online-school-privacy.html> [https://perma.cc/4RAL-LKDD].

many do not.¹⁰⁹ Importantly, applicable privacy laws like the Children’s Online Privacy Protection Act¹¹⁰ (COPPA) and the Family Education Rights Protection Act¹¹¹ (FERPA) do not protect against all abuses of privacy but rather are limited to specific contexts, types of information, and actors.¹¹² Accordingly, rights to educational privacy are limited.¹¹³

In the social space, norms for privacy have also shifted. Due to social distancing and lockdown protocols, many people have migrated online to socialize with others.¹¹⁴ This has resulted in an uptick in user adoption of tools like Zoom, formerly known as being only an enterprise video-conferencing work application, for consumer, personal, or social purposes.¹¹⁵

The role of surveillance and technology has created new norms for privacy, including blurry lines between work, school, and play, which I highlight in the next Section. Not only has the COVID-19 pandemic

109. See Tyler Sonnemaker, *As Zoom Classes Take over During the Pandemic, Edtech Companies Provide a Lifeline, but Only for Schools and Parents Willing to Surrender Their Students’ Privacy*, BUS. INSIDER (Oct. 13, 2020, 4:37 PM), <https://www.businessinsider.com/virtual-learning-privacy-tech-teachers-parents-schools-student-data-2020-10> [<https://perma.cc/J6ZU-PNAK>] (highlighting how many online learning tools lack sufficient privacy safeguards to prevent “Zoom bombing” . . . , unwitting data sharing, and creepy digital test proctoring”).

110. Pub. L. No. 105-277, 112 Stat. 2861 (1998) (codified at 15 U.S.C. §§ 6501–6506 (2018)).

111. Pub. L. No. 93-380, 88 Stat. 484, 571 (1974) (codified at 20 U.S.C. § 1232(g) (2018)).

112. See, e.g., 15 U.S.C. §§ 6501(1)–(2), 6501(10)(a), 6502(b)(1) (limiting COPPA’s jurisdiction to individuals younger than thirteen years old who use a website and to “website[s] or online service[s] directed to children” that collect personal information from the children); 20 U.S.C. §§ 1232(g)(a)(1)(A), 1232(g)(a)(4)(A)–(B) (explaining that if a school receives federal funding, parents have a right to inspect their child’s “education records,” but excluding from this definition various categories of information).

113. See 20 U.S.C. § 1232(g)(a)(4)(B)(i)–(iv) (explaining the types of information that are not included as an “educational record” under FERPA); see also *Students: Your Right to Privacy*, AM. CIV. LIBERTIES UNION, <https://www.aclu.org/other/students-your-right-privacy> [<https://perma.cc/9YD8-J8Z2>] (stating that students have fewer privacy rights in a public school than if they were outside of the school, due to, for example, teachers’ ability to legally search students without a warrant if the teacher has reasonable grounds to suspect the search will provide evidence that the student has violated the law or school rules (citing *New Jersey v. T.L.O.*, 469 U.S. 325, 337, 340–42 (1985))).

114. Caity Weaver et al., *True Tales of Quarantined Socializing*, N.Y. TIMES (Mar. 19, 2020), <https://www.nytimes.com/2020/03/19/style/coronavirus-quarantine-socializing.html> [<https://perma.cc/R8DB-7Y64>].

115. See *id.* (explaining myriad ways individuals are using videos conferencing apps like Zoom to socialize, such as playing video games, attending virtual raves, or participating in Alcoholics Anonymous).

changed our society's privacy norms, but it has also exposed the limitations of current laws and regulations governing privacy, technology, and public health. Legal solutions must include both a direct response to current needs as well as long-term structural change. Ideally, insights gleaned from this pandemic can lead to better law for the next public health emergency.

C. *Changing Privacy Norms*

Just as the law changes to reflect the changing mores and norms of society, so too does our conception of privacy. Earlier in this Article, I discussed some of the ways in which other social and political factors of this contemporary moment in time may have influenced our current understanding of privacy norms.¹¹⁶ Beyond these social and political factors, the pandemic's global impact has also fostered a shift in privacy norms. The three norm shifts I outline in this Section are: (1) a blurring of the divide between cyber and physical space; (2) a changing relationship between privacy and public health; and (3) an increased focus on digital inequities.

Perhaps the most obvious of norm shifts has been the erosion of the line between cyber and physical space. As countries and states enforced lockdowns, more of life moved to an online context.¹¹⁷ Use of online communication means for multiple sectors of life—work, school, and play—has blurred the lines between them. This erosion has changed the way we understand privacy. Previously, people may have had different expectations of privacy at school, at work, and at home. However, during the pandemic, these spaces have become conflated and combined, changing expectations of privacy in each of these spaces. There is something lost now in terms of privacy when everyone in all of these spaces can have the same access to your information and, in some cases, the visual contents of your home.

As more of our lives move online, data privacy in an online context is no longer as abstract as it was before. Historically, people have viewed, and the courts have treated, bodily privacy or physical privacy

116. See *supra* Section I.B (highlighting important events that occurred in 2020 to contextualize these changes).

117. Minh Hao Nguyen et al., *Changes in Digital Communication During the COVID-19 Global Pandemic: Implications for Digital Inequality and Future Research*, SOC. MEDIA + SOC'Y, July–Sept. 2020, at 1, 1–2; see *supra* notes 6–7 and accompanying text; cf. Sections II.A–B.

as distinct from data or information privacy.¹¹⁸ The more we live our lives in an online and digital environment, or in a physical environment mediated by connected technologies, the more we collapse that divide between cyber and physical and, correspondingly, the divide between physical privacy and information privacy. This creates a context collapse of sorts, as individuals are forced to reconcile the previously separate contexts in which they presented and performed different facets of their identities.¹¹⁹

This blurring of the cyber and physical divide is an important norm shift to contemplate when thinking about how to protect privacy in this time of pandemic and beyond. Legal and regulatory solutions that seek to protect privacy must address both physical and informational privacy challenges, including measures to protect privacy as necessary for different contexts, in line with what Helen Nissenbaum has called “contextual integrity.”¹²⁰ For example, laws protecting educational privacy must not only protect student records and information, but

118. See Jan Holvast, *History of Privacy*, in *THE FUTURE OF IDENTITY IN THE INFORMATION SOCIETY* 13, 16 (Vashek Matyáš et al. eds., 4th ed. 2009) (explaining how there are two distinguishable dimensions of privacy: territorial or bodily privacy and informational privacy); Annual Symposium Panel Discussion Materials, *Surveillance and Privacy in the Pandemic*, AM. U. L. REV. 1–3 (Feb. 4, 2021), http://www.aulawreview.org/au_law_review/wp-content/uploads/2021/02/Surveillance-and-Privacy-in-the-Pandemic-1.pdf [https://perma.cc/5VBH-NXQG] [hereinafter *Surveillance and Privacy in the Pandemic*] (explaining the *Whalen* decision enunciating the two interests in the right to privacy, namely the individual interest in avoiding personal disclosure and interest in independence in decision making (citing *Whalen v. Roe*, 429 U.S. 589, 599–600 (1977))). Compare *Birchfield v. North Dakota*, 136 S. Ct. 2160, 2178 (2016) (articulating the heightened bodily privacy concerns surrounding law enforcement officers’ attempts to obtain a blood alcohol concentration reading from a motorist suspected of drunk driving through a blood test), and *Kyllo v. United States*, 533 U.S. 27, 34 (2001) (holding that law enforcement officers’ deployment of technological tools “not in general public use” to obtain details about the inside of a person’s home that are not otherwise ascertainable without physical entry constitutes a search under the Fourth Amendment), with *Whalen*, 429 U.S. at 598–600 (discussing a string of cases involving two strains of privacy interests, namely “the individual interest in avoiding disclosure of personal matters” and “the interest in independence in making certain kinds of important decisions”), and *Nat’l Aeronautics & Space Admin. v. Nelson*, 562 U.S. 134, 159 (2011) (holding that the information NASA sought on a background check form does not, in this case, offend a right to informational privacy rooted in the Constitution).

119. Danah Boyd, *Faceted ID/Entity: Managing Representation in a Digital World*. Cambridge (Aug. 9, 2002) (M.S. thesis, Massachusetts Institute of Technology) (on file with MIT Media Lab).

120. HELLEN NISSENBAUM, *PRIVACY IN CONTEXT: TECHNOLOGY, POLICY, AND THE INTEGRITY OF SOCIAL LIFE* 2 (2009).

also the privacy of the physical campus environment. Laws that protect only physical privacy or only informational privacy will quite soon become obsolete, especially as the pandemic accelerates the blurring of the divide between online and offline spaces.

Another norm shift has been the changing relationship between privacy and public health. As the pandemic has impacted every part of life, norms have changed involving the role of public health in society. Increasingly, public health has become a justification for any number of privacy violations.¹²¹ In the middle of an active pandemic, it is hard for anyone to object to a public health response or a new use of technology that might hasten the end of the pandemic or lessen the toll on the humans living through it. It is comparatively easy to justify almost anything aimed at mitigating the pandemic's effects, even unregulated technologies that violate privacy or public-private health partnerships that give corporations and the government unprecedented access to sensitive health data.

Americans are rapidly becoming more accustomed to privacy violations done in the name of public health, just as Americans became accustomed to privacy violations done in the name of public safety in the aftermath of the tragedy of September 11, 2001.¹²² However, this norm shift is important to recognize as a warning bell. It is very difficult to roll back privacy-invasive technologies and overreach by governments or corporations.¹²³ Thus, we must remain vigilant in studying how laws

121. Shachar, *supra* note 97; see Marissa B. Cohen, *The Confusion over Privacy: HIPAA, the Constitution, and COVID-19*, NAT'L L. REV., June 2, 2020 (articulating government attempts to diminish privacy laws as it tried to prevent the spread of COVID-19); see also Maggie Miller, *Democrats Introduce Measure to Boost Privacy, Security of Health Data During Pandemic*, THE HILL (Jan. 28, 2021, 4:50 PM), <https://thehill.com/policy/cybersecurity/536379-democrats-introduce-measure-to-boost-privacy-security-of-health-data> [<https://perma.cc/69LL-HCX2>] (quoting U.S. Senator Richard Blumenthal, who stated—following his introduction of new legislation to modernize privacy protections—that private health data would “be used to stop the spread of this disease, and no more”).

122. *Surveillance and Privacy in the Pandemic*, *supra* note 118, at 4–5.

123. See Mike Giglio, *Would You Sacrifice Your Privacy to Get out of Quarantine?*, ATL. (Apr. 22, 2020), <https://www.theatlantic.com/politics/archive/2020/04/coronavirus-pandemic-privacy-civil-liberties-911/609172> [<https://perma.cc/S5WN-VXJU>] (recounting a conversation with ex-CIA employee Douglas London, who explained that while he does not endorse it, COVID-19 legislation permitting an invasion of personal privacy would be helpful to fight the pandemic, just as the PATRIOT Act gave the government powerful surveillance tools to combat terrorism following the terror attacks of September 11, 2001); cf. *Surveillance and Privacy in the Pandemic*, *supra* note 118, at 2–5 (detailing the various security measures countries have implemented that impact individual privacy rights in an attempt to thwart the spread of COVID-19).

can protect privacy, even when public health is at stake—as it is during an active global pandemic.

Luckily, this pandemic has shown us that maximally privacy-preserving methods do exist as viable options for many public health and technology responses. For example, digital contact tracing applications can be built to preserve their users' private information, and even as open-source apps, as Google and Apple's exposure notification tools demonstrated.¹²⁴ Instead of blindly giving up our privacy for the sake of unknown benefits to public health, we should continue to seek the privacy-preserving methods of achieving our public health goals. Privacy and public health are not mutually exclusive values, and our society needs both to function.

Finally, the pandemic has thrown into sharp relief the inequalities inherent in our social and political systems. COVID-19 has exacerbated inequities that minority populations face in a variety of settings, including employment, education, and living conditions.¹²⁵ Although it is still early, I am hopeful that we are witnessing a norm shift in thinking about structural and institutional inequalities in our society.¹²⁶ That shift in thinking will necessarily impact the way we understand privacy too, and hopefully, we will become more aware as a society of the ways in which privacy differently affects people from different parts of society.¹²⁷ Post-pandemic privacy law must take inequities into account and protect privacy for all people.

124. See *Surveillance and Privacy in the Pandemic*, *supra* note 118, at 8–9 (detailing how Apple and Google cautioned the public that their contact tracing application would not track users' locations or reveal the identities of infected individuals to the platform companies or government).

125. See, e.g., *supra* notes 20–21, 29–38 and accompanying text.

126. See, e.g., UGUR YILDIRIM, UNIV. OF CAL., PERCEPTIONS OF INEQUALITY DURING THE CORONAVIRUS OUTBREAK 22 (2020) (showing that people felt perceptions about class inequalities more strongly in the context of the pandemic); Cristina G. Mora et al., *Perceptions of Inequality and the Pandemic Vary Drastically Among Californians*, U.C. BERKELEY: INST. GOVERNMENTAL STUD. (MAY 13, 2020), <https://escholarship.org/uc/item/5f07q09c#main> (finding that most Californians recognized that the COVID-19 pandemic was hitting Black populations the hardest); Dylan Wiwad et al., *Recognizing the Impact of COVID-19 on the Poor Alters Attitudes Towards Poverty and Inequality*, J. EXPERIMENTAL SOC. PSYCH., Nov. 14, 2020, at 1, 6 (finding that individuals exposed to those suffering from poverty due to the COVID-19 pandemic experienced an increased willingness to help).

127. See Reichel, *supra* note 56, at 4757 (identifying a widening data privacy gap between individuals who can afford more expensive cell phones like iPhones, which come with default encryption, and people whose cell phones often lack default encryption).

III. RECOMMENDATIONS

The pandemic has shifted the way our society understands privacy, which will have long-lasting effects.¹²⁸ While it may be understandable that many sought to sacrifice privacy for the sake of public health (whether through greater collection of data, new uses of privacy-invasive technology, or other means), it is still critical to consider how to stop the erosion of privacy before it is too late. This Section provides a framework for evaluating forward-looking privacy law proposals and then examines some statutory and regulatory solutions.

A. A Framework for Post-Pandemic Privacy Law

Any legislative proposal focused on post-pandemic privacy ought to keep the following considerations in mind: (1) post-pandemic privacy law must address the entire data ecosystem; (2) post-pandemic privacy law must address systemic inequities; and (3) post-pandemic privacy law must be sustainable.

Post-pandemic privacy law must seek to cover the entire data ecosystem, recognizing the interconnected nature of data and information, particularly given the rise of AI and machine learning technologies.¹²⁹ Because the COVID-19 pandemic has intersected with other major world events, one can only fully understand the pandemic's impact in the context of those concurrent events.¹³⁰ Relatedly, data created, collected, and utilized during this pandemic will have far-flung effects on privacy far after the pandemic has ended. Whatever laws and legal norms we create to address this pandemic will not be isolated to this pandemic. The laws enacted in response to the pandemic and the legal norms arising from them will have lasting effects on society because (1) the health data created and obtained during the pandemic will continue to exist, with downstream harms being so distributed,¹³¹ (2) norms will have changed and continue

128. See *supra* notes 122–23 and accompanying text.

129. See *supra* Sections II.A–B (discussing the proliferation of new technologies and the redeployment of existing technologies to assist in pandemic management and response).

130. See *supra* Section I.B (highlighting how the pandemic and other events in 2020 and 2021, such as Black Lives Matter protests and the presidential election, provide important context for understanding shifts in privacy norms).

131. Compare Katherine Bindley, *Your Health Data Isn't as Safe as You Think*, WALL ST. J. (Nov. 22, 2019, 1:15 PM), <https://www.wsj.com/articles/your-health-data-isnt-as-safe-as-you-think-11574418606> [<https://perma.cc/7F6B-C8V4>] (highlighting patients' lack of control over their data once personally identifiable information has been removed), with Christina Farr, *Hospital Execs Say They Are Getting Flooded with Requests for*

changing, even if the governing law reverts to pre-pandemic standards, and (3) laws will set precedents for the next health crisis. Thus, privacy laws that seek to address the harms of the pandemic must also address the post-pandemic harms that will result.

Second, post-pandemic privacy law must reckon with systemic inequalities and the ways in which privacy harms and risks disproportionately affect different marginalized populations.¹³² The pandemic does not affect all of us equally.¹³³ Laws must address the disparate harms and different needs of different populations, including women, BIPOC and LGBTQ community members, elderly individuals, disabled people, impoverished persons, and others who may face challenges due to systemic social issues. People from marginalized groups disproportionately suffer from privacy harms, including negative consequences effected by biased algorithmic systems.¹³⁴ These are harms that will not disappear after the pandemic's end.

Finally, post-pandemic privacy law must be sustainable. The effects of the pandemic on our society and our economy will last for years.¹³⁵ Policymakers must not draft legislative fixes that will hold for the next few months, but rather must attempt to create policy that will support the nation through the next few years and decades. They must attempt

Your Health Data, CNBC (Dec. 18, 2019, 7:02 PM), <https://www.cnn.com/2019/12/18/hospital-execs-say-theyre-flooded-with-requests-for-your-health-data.html> [<https://perma.cc/GMA9-NFDR>] (detailing companies' ability to identify patients based on health data they have purchased, though the information is protected), and Natasha Singer, *When Apps Get Your Medical Data, Your Privacy May Go with It*, N.Y. TIMES (Sept. 3, 2019), <https://www.nytimes.com/2019/09/03/technology/smartphone-medical-records.html> [<https://perma.cc/E7YX-H9PD>] (identifying potential negative consequences when patient data is more readily available without privacy restrictions).

132. See *supra* notes 54–57 and accompanying text (showing that rights to data privacy are less accessible for people of color and other minority populations).

133. See, e.g., *supra* notes 35–38 and accompanying text (detailing the heightened social isolation the elderly and immunocompromised have experienced during the pandemic).

134. *Surveillance and Privacy in the Pandemic*, *supra* note 118, at 11 (“As racial justice activists have noted for years, facial recognition technology is rife with bias and accuracy issues . . .”); see *supra* Section I.B (highlighting bias in algorithms, such as ExamSoft’s remote testing software).

135. Mike Patton, *The Impact of Covid-19 on U.S. Economy & Financial Markets*, FORBES (Oct. 12, 2020, 1:32 PM), <https://www.forbes.com/sites/mikepatton/2020/10/12/the-impact-of-covid-19-on-us-economy-and-financial-markets/?sh=6e7e06642d20> (explaining how COVID-19 permanently changed the labor market by hastening corporations’ shift to technological solutions in place of workers, depressing demand for commercial real estate, and giving employers the upper hand in hiring due to high unemployment rates).

to create legal and policy solutions that will support and sustain our privacy rights throughout this crisis and beyond.

B. Legal and Regulatory Solutions

Keeping this context in mind, and using the considerations mentioned in my proposed framework, I recommend the following legal and regulatory solutions to protect privacy both in this time of pandemic and also in the post-pandemic world to come.

1. Federal privacy law

First, the United States must pass a federal privacy law. Now that one party has control of both houses of Congress and even the executive, there is potential for such a law to pass.¹³⁶ It is beyond time to create a national framework for thinking about privacy instead of relying on a patchwork of sectoral privacy laws that do not reflect the realities of privacy today.¹³⁷ Unlike laws that focus on individual points of data collection and individual data collectors, a federal privacy law would offer enhanced privacy protections to Americans throughout the entire data ecosystem. If crafted well, a federal privacy law could also take into account discrimination and disparate impacts that privacy violations have on different populations. A federal privacy law could protect not just privacy, but privacy equity.

Not only is passing a federal privacy law important for creating a sustainable solution for privacy in a pandemic and post-pandemic world, but it is also the only way forward to protect privacy on a long-term, global scale.” Short-term solutions, like proposed coronavirus privacy bills or specific terms within coronavirus relief bills, are only stop-gap solutions that will not last past this time.¹³⁸ Further, a federal privacy law is the only way to make sustainable post-pandemic privacy law in a globalized context. This legislation would not only clarify privacy law for the nation, but it would also serve as a signal to the rest

136. Sara M. Watson, *Insider Intelligence Predicts that Congress Will Finally Pass a Federal Data Privacy Law in 2021*, BUS. INSIDER (Dec. 28, 2020, 10:03 AM), <https://www.businessinsider.com/congress-may-finally-pass-federal-data-privacy-law-in-2021-2020-12>; see also Miller, *supra* note 121 (reporting that congressional Democrats reintroduced the Public Health Emergency Privacy Act in January 2021, which would protect health data collected during the pandemic from being used for other purposes); *infra* Section IV.B.2 (discussing the same).

137. See, e.g., *supra* Section II.A (discussing HIPAA and how private companies that run contact tracing applications may not fall within the Act’s implementing Privacy Rule).

138. See *infra* Section III.B.2 (explaining that current state laws can be improved to better protect individuals’ privacy rights).

of the world that we, along with our friends and allies in the European Union and elsewhere, are holding privacy to be a core value for democracy.¹³⁹ In this vein, a federal privacy law is a core component of future, post-pandemic foreign policy.

A federal privacy law tailored towards the concerns this Article raises is the best solution for post-pandemic privacy law. However, passing such a law may take considerable time. In lieu of or until the passage of a federal privacy law, we can still take steps to protect privacy in the pandemic and in a post-pandemic world.

2. *Patchwork privacy law updates*

We can strengthen existing privacy laws. In particular, we should examine our health, biometric, and genetic privacy laws. These categories of data are particularly sensitive, and the pandemic has caused a boom in collection and use of such data.¹⁴⁰ We should expand such laws to take into account both public and private actors, not limited to only traditional public health institutions.¹⁴¹ Laws like the Illinois Biometric Information Privacy Act¹⁴² (BIPA) could be a good model for creating solutions for this category of data that take into account the entire data ecosystem, looking at collection, sharing, and use of data, instead of simply regulating the initial collection or transmission of data.¹⁴³ For example, BIPA includes provisions that apply to sellers, disclosers, and buyers of biometric data.¹⁴⁴ Entities can be found to have violated BIPA through unauthorized use of biometric data, regardless of whether the companies were the ones who initially collected the data.¹⁴⁵

139. Sandra Seubert & Carlos Becker, *The Democratic Impact of Strengthening European Fundamental Rights in the Digital Age: The Example of Privacy Protection*, 22 GERMAN L.J., 31, 43–44 (2021) (asserting that the General Data Protection Regulation in the European Union protects individual privacy rights and strengthens democracy).

140. See *supra* Section II.A.

141. See *supra* Section II.A (highlighting the weaknesses in HIPAA regarding entities who are not covered by its scope but have begun to operate in the healthcare sector to aid in COVID-19 response).

142. 740 ILL. COMP. STAT. ANN. 14/1–25 (West 2008).

143. 740 ILL. COMP. STAT. ANN. 14/15(a)–(c).

144. 740 ILL. COMP. STAT. ANN. 14/15(b)–(d).

145. See 740 ILL. COMP. STAT. ANN. 14/15(e) (making no distinction between private entities that initially collected biometric data and private entities that simply possess biometric data).

Another area where we can reform privacy law is by creating a right to educational privacy. FERPA and COPPA are not enough.¹⁴⁶ Instead, we ought to pass a new law that addresses educational privacy as a right for both students and educators. This law should protect both the physical space of the campus and online learning spaces. A whole-system approach would require that an educational privacy law also be applicable to both public education institutions as well as private corporations, including technology companies that sell education applications. We should value the importance of intellectual privacy in allowing students to explore new ideas and allowing educators to share knowledge and guide students. Of course, such a law must address inequities in education, including the lack of access many have to digital resources (including basic broadband internet).¹⁴⁷

Post-pandemic privacy law must regulate data aggregators and downstream data harms. Congress wrote many of our current privacy laws on the basis of the outdated privacy concept of a notice-and-consent regime.¹⁴⁸ This no longer works today, given the web of data that surrounds each of us.¹⁴⁹ It is no longer possible for any person to know fully where their data goes. Data is collected, used, shared, sold, resold, repackaged, and eventually aggregated by data brokers or data aggregators.¹⁵⁰ The rise of machine learning and AI has also worsened this privacy catastrophe, as more and more data is needed to power these systems.¹⁵¹ The United States needs new laws to regulate data

146. See *supra* notes 107–13 and accompanying text (discussing the limited scope of privacy protections in FERPA and COPPA).

147. See *supra* Section I.A (discussing difficulties students have faced in the shift to remote learning).

148. Cameron F. Kerry, *Why Protecting Privacy Is a Losing Game Today—and How to Change the Game*, BROOKINGS (July 12, 2018), <https://www.brookings.edu/research/why-protecting-privacy-is-a-losing-game-today-and-how-to-change-the-game> [<https://perma.cc/3T99-8TUK>] (explaining how current notice-and-consent privacy policies are outdated); see *2020 Consumer Data Privacy Legislation*, NAT'L CONF. STATE LEGISLATURES (Jan. 17, 2020), <https://www.ncsl.org/research/telecommunications-and-information-technology/2020-consumer-data-privacy-legislation637290470.aspx> [<https://perma.cc/T7GC-ZHZV>] (listing various privacy bills proposed—but not enacted—in state legislatures during 2019 and 2020).

149. Kerry, *supra* note 148.

150. FTC, *DATA BROKERS: A CALL FOR TRANSPARENCY AND ACCOUNTABILITY* (2014), <https://www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf> [<https://perma.cc/6BN2-K7U5>].

151. See *The World's Data Center Infrastructure Industry, 2020 Study—Aging IT Infrastructure Unable to Store Current Data Volume Drives Growth*, CISION (Apr. 22, 2020), <https://www.prnewswire.com/news-releases/the-worlds-data-center-infrastructure->

brokers, to enforce transparency and accountability, and to limit certain uses of data. Additionally, we must craft legal protections that ward against downstream data harms—that is, the harms that occur after the initial collection and use of data. These downstream harms can include the sharing and reselling of data or the inclusion of personal data in machine learning systems, including those that are used in facial recognition technologies.¹⁵²

Any new privacy law, or any expansion of old privacy law, must attempt to address inequities. This is important not only because it is the morally and ethically right thing to do, but also because our society has increasingly valued equity over time.¹⁵³ Thus, the best path forward for creating sustainable privacy laws, and changes in privacy laws, is to craft such laws and changes in ways that address inequities, providing protection to all people and recognizing the unique harms and risks that people from marginalized populations often suffer.¹⁵⁴ For example, privacy laws can recognize the gender dimensions of non-consensual intimate imagery, as the SHIELD Act,¹⁵⁵ does.

industry-2020-study—aging-it-infrastructure-unable-to-store-current-data-volume-drives-growth-301045175.html [https://perma.cc/8W3L-JLX9]; Wallace Immen, *Big Data Needs Big Storage*, GLOBE & MAIL (June 5, 2018), https://www.theglobeandmail.com/business/industry-news/property-report/article-big-data-needs-big-storage-buildings [https://perma.cc/2T7R-FCMG] (explaining how global data storage and processing has grown drastically in recent years due to emerging technology).

152. See Drew Harwell, *FBI, ICE Find State Driver's License Photos Are a Gold Mine for Facial Recognition Searches*, WASH. POST (July 7, 2019, 3:54 PM), https://www.washingtonpost.com/technology/2019/07/07/fbi-ice-find-state-drivers-license-photos-are-gold-mine-facial-recognition-searches [https://perma.cc/DKN9-C757] (highlighting federal law enforcement officers' use of state Department of Motor Vehicles databases for facial-recognition surveillance); Jennifer Valentino-DeVries, *How the Police Use Facial Recognition, and Where It Falls Short*, N.Y. TIMES (Jan. 12, 2020) https://www.nytimes.com/2020/01/12/technology/facial-recognition-police.html [https://perma.cc/A7E2-KKP6] (stating that “a 2016 study found that half of American adults were in a law enforcement facial recognition database”); Bindley, *supra* note 131 (explaining HIPAA's limitations and the potential for companies to determine individual identities associated with health data based on other data they already purchased or collected).

153. See *supra* Section II.C (suggesting that a shift in norms is underway that will better focus society's attention on privacy equity).

154. See *supra* Section I.A (discussing the pandemic's disparate impacts on different sectors of the population).

155. H.R. 2896, 116th Cong. (1st Sess. 2019).

3. *Privacy law as foreign policy*

Finally, due to the globalized nature of the internet and cross-border data flows, it is important to consider not only how to protect privacy in the United States, but also how to protect privacy on a global scale. American policymakers should keep this broader international goal of protecting global privacy, if for no other reason than that raising the floor for privacy protections internationally is bound to protect the privacy of American citizens as well. With that goal in mind, policymakers should take measures to protect global privacy by supporting the development of the U.S. technology industry. This may not appear to be the obvious solution to privacy problems; however, supporting technological development in America is a necessary part of the U.S. policy path forward for protecting privacy in the global context. As we have seen with many new technologies, there is a sort of “first mover advantage” in that the companies who first create or sell a technology often set the norms for that technology.¹⁵⁶ The governments that regulate those companies are often able to play a role as well. So it was with the advent of the early internet. Much of the early internet was shaped by researchers, developers, and companies from the United States, which may explain why the internet developed in a way that focused on American speech norms, instead of the more restrictive speech and censorship norms often found in other nations.¹⁵⁷

156. See, e.g., Patrick J. McKenna, *Develop a “First Mover” Advantage*, 26 LAW PRAC. MGMT. 41, 41–43 (2000) (explaining how professional service companies, such as law and accounting firms, use first mover advantages to shape the norms of the industry); Ryan Holmes, *The Rules of Social Media Just Changed. Here’s How to Keep up*, FORBES (Apr. 17, 2019, 3:06 PM), <https://www.forbes.com/sites/ryanhomes/2019/04/17/the-rules-of-social-media-just-changed-heres-how-to-keep-up/?sh=70bd8406731d> [<https://perma.cc/99Q9-5V98>] (explaining how Facebook, WeChat, and other prominent social media platforms establish norms for other websites and applications). But see Constantinos Markides & Lourdes Sosa, *Pioneering and First Mover Advantages: The Importance of Business Models*, 46 LONG RANGE PLAN. 325, 326 (2013) (stating that first movers in a new market rarely dominate the market, as most of them fail).

157. See Michael Aaron Dennis, *Internet*, BRITANNICA, <https://www.britannica.com/technology/Internet> (last visited May 14, 2021) (stating the internet originated in the United States); Katrina Brooker, *“I Was Devastated”: Tim Berners-Lee, The Man Who Created the World Wide Web, Has Some Regrets*, VANITY FAIR (July 1, 2018), <https://www.vanityfair.com/news/2018/07/the-man-who-created-the-world-wide-web-has-some-regrets> [<https://perma.cc/F2UE-4564>] (recounting that the inventor of the World Wide Web, upon which the internet sits, intended for the Web to be open and free to use); Jonathon W. Penney, *Internet Access Rights: A Brief History and Intellectual Origins*, 38 WM. MITCHELL L. REV., 10, 21–23 (2011) (detailing how American ideals of freedom of speech spread after World War II and impacted the internet internationally); cf. Helen Lewis, *The World Is Trapped in America’s Culture War*, ATL.

To support the sustainable and global development of pro-democratic norms for privacy, the United States must continue to support the development of the technology industry, including increasing funding for education and research. Further, while it is necessary to create privacy regulations and laws, the United States should not overly burden companies, especially new startups, in a way that stymies innovation.¹⁵⁸

The best path forward for the United States is to support increased American technological innovation, combined with a federal privacy law. This is important not only to protect privacy in America, but also to promote the cause of global democracy and privacy rights abroad. A federal privacy law will put America on the level of our allies in Europe and beyond, where many countries have already passed stronger privacy laws.¹⁵⁹ This will permit us to further establish a united front in promoting privacy and democratic values abroad, allowing us to support nations around the world in protecting the core values of privacy, speech, and democracy.

IV. CURRENT LAWS AND PROPOSALS

A. *Privacy Provisions in Coronavirus Relief Bills*

The pandemic has caused untold suffering throughout the world, including in the United States. The U.S. Congress has passed several relief bills in an attempt to respond to some of the increased needs

(Oct. 27, 2020), <https://www.theatlantic.com/international/archive/2020/10/internet-world-trapped-americas-culture-war/616799> [https://perma.cc/EV7F-DLAY] (showing that American issues frequently dominate internet news sources and social media websites in other countries). Perhaps part of the problem we can see in today's data ecosystem can also be traced to this historical fact as well. While the United States heavily prioritizes free speech, other nations, including many in Europe, value privacy just as much as speech. See Anupam Chander & Uyên P. Lê, *Free Speech*, 100 IOWA L. REV. 501, 504–07, 517–18, 541–42 (2015) (explaining that the First Amendment was fundamental in shaping cyberlaw in America, and arguing that other countries that lack similar protection, such as China, Iran, Russia, and South Korea, have enacted stronger privacy laws to compensate). Perhaps if the internet had been a project of German or French values, we would have seen, baked in from the beginning, more of an equal valuing of privacy and speech.

158. See Tony Glosson, Note, *Data Privacy in Our Federalist System: Toward an Evaluative Framework for State Privacy Laws*, 67 FED. COMM'NS L.J., 409, 412 (2015) (emphasizing that having different state laws with varying levels of privacy restrictions will impede start-ups).

159. Council Regulation 2016/679, 2016 J.O. (L 119) 1.

from Americans.¹⁶⁰ These bills have mostly been broad in scope.¹⁶¹ Policymakers can include privacy protections in coronavirus relief bills, though the focus of such bills has been economic relief, and not necessarily privacy.

Four coronavirus relief bills have passed at the time of writing.¹⁶² As the pandemic stretches onwards, it is possible that Congress will pass further laws to provide relief to individuals and businesses suffering from the pandemic.¹⁶³ The U.S. government enacted the first three coronavirus relief laws in March 2020: the Coronavirus Preparedness and Response Supplemental Appropriations Act¹⁶⁴ (enacted on March 6, 2020), the Families First Coronavirus Response Act¹⁶⁵ (FFCRA) (enacted on March 18, 2020), and the Coronavirus, Aid, Relief, and

160. See Coronavirus Aid, Relief, and Economic Security Act, Pub. L. No. 116-136, 134 Stat. 281 (2020) (to be codified at 15 U.S.C. § 9001); Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020, Pub. L. No. 116-123, 134 Stat. 146, Pub. L. 116-123 (2020); Families First Coronavirus Response Act, Pub. L. No. 116-127, 134 Stat. 178 (2020) (to be codified at 29 U.S.C. § 2601); American Rescue Plan Act of 2021, Pub. L. No. 117-2 (2021).

161. See Naomi Jagoda et al., *What Is in the \$900 Billion Coronavirus Relief Bill*, THE HILL (Dec. 20, 2020, 9:30 PM), <https://thehill.com/policy/finance/531086-whats-in-the-900billion-coronavirus-relief-bill> [<https://perma.cc/SP88-MNBW>] (highlighting the stimulus check payment provisions of one relief bill); *The Treasury Department Is Delivering COVID-19 Relief for All Americans*, DEP'T OF TREASURY, <https://home.treasury.gov/policy-issues/cares> [<https://perma.cc/M7FZ-LV9S>] (stating that the coronavirus aid bills were intended to “provide fast and direct economic assistance for American workers, families, and small businesses, and preserve jobs for American industries”).

162. See Erica Werner & Jeff Stein, *House Vote Unlocks Partisan Path for Biden Coronavirus Relief Bill*, WASH. POST (Feb. 3, 2021, 6:33 PM), <https://www.washingtonpost.com/us-policy/2021/02/03/house-coronavirus-relief-budget-bill> [<https://perma.cc/N34E-SSQC>] (describing a vote in the House of Representatives to unlock a Senate procedure permitting President Biden’s \$1.9 trillion COVID-19 aid bill to pass the Senate with a simple majority vote); Kate Sullivan, *Biden Signs Historic \$1.9 Trillion Covid-19 Relief Law*, CNN (Mar. 11, 2021, 2:51 PM), <https://www.cnn.com/2021/03/11/politics/biden-sign-covid-bill/index.html> [<https://perma.cc/A322-TBVG>]; see also Jordain Carney, *White House, Senate GOP Race to Finalize Coronavirus Package Ahead of Monday Rollout*, THE HILL (July 27, 2020, 8:18 PM), <https://thehill.com/homenews/senate/509108-white-house-senate-gop-race-to-finalize-coronavirus-package-ahead-of-monday> [<https://perma.cc/BZ5D-5ZRS>] (describing one of the COVID-19 aid packages proposed in 2020).

163. See *supra* notes 19–25 and accompanying text.

164. Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020, Pub. L. No. 116-123, 134 Stat. 146 (2020).

165. Families First Coronavirus Response Act, Pub. L. No. 116-127, 134 Stat. 178 (2020) (to be codified 29 U.S.C. § 2601).

Economic Security Act¹⁶⁶ (CARES Act) (enacted on Marcy 27, 2020). The CARES Act created the largest economic stimulus package in the history of the United States,¹⁶⁷ earmarking \$2 trillion dollars in relief funds.¹⁶⁸ Finally, in March 2021, the new Administration passed another coronavirus relief law, the American Rescue Plan Act.¹⁶⁹

These enacted COVID-19 response laws include provisions that touch on both privacy and public health. For example, the FFCRA includes provisions that support increased COVID-19 testing by making testing free or low cost to individuals enrolled by covered health plans.¹⁷⁰ Perhaps most striking is the CARES Act provision that seeks to fund a “public health surveillance and data collection system” as part of COVID-19 response.¹⁷¹ While this provision is likely well-intended and acknowledges the need for more data to understand and eventually end this pandemic, there are significant privacy concerns that come with any expansion of government surveillance.¹⁷²

All existing coronavirus relief laws lack concrete privacy protections for data collected as part of any public health surveillance apparatus, though the CARES Act does mandate oversight from the Pandemic Response Accountability Committee (PRAC).¹⁷³ However, some have questioned PRAC’s ability to oversee data collection, particularly as President Trump fired PRAC’s presumptive chair shortly after Congress passed the bill.¹⁷⁴

166. Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Pub. L. No. 116–136, 134 Stat. 281 (2020) (to be codified at 15 U.S.C. § 9001).

167. Sarah D. Wire, *Senate Passes \$2-Trillion Economic Stimulus Package*, L.A. TIMES (Mar. 25, 2020, 8:57 PM), <https://www.latimes.com/politics/story/2020-03-25/vote-senate-on-2-trillion-economic-stimulus-package-coronavirus>.

168. See, e.g., Barbara Sprunt, *READ: \$2 Trillion Coronavirus Relief Bill*, NPR (Mar. 25, 2020, 10:29 PM), <https://www.npr.org/2020/03/25/820759545/read-2-trillion-coronavirus-relief-bill> [<https://perma.cc/Z9A9-J6UK>].

169. See Sullivan, *supra* note 162.

170. Families First Coronavirus Response Act §§ 6001–6002.

171. § 6002 134 Stat. at 281, 554; see also Sidney Fussell, *The Coronavirus Relief Bill Promotes Surveillance for Health*, WIRED (Mar. 31, 2020, 12:26 PM), <https://www.wired.com/story/coronavirus-relief-bill-promotes-surveillance-health> [<https://perma.cc/82M2-PEQN>].

172. See generally *Introduction to Public Health Surveillance*, CDC (Nov. 15, 2018), <https://www.cdc.gov/training/publichealth101/surveillance.html> [<https://perma.cc/UV6F-W9XH>] (providing an introduction to public health surveillance).

173. § 6002 134 Stat. at 533–34.

174. E.g., Niels Lesniewski, *Senate Democrats Back Oversight Efforts After Trump Removal of IG*, ROLL CALL (Apr. 8, 2020, 3:04 PM), <https://www.rollcall.com/2020/04/08/senate-democrats-back-oversight-efforts-after-trump-removal-of-ig> [<https://perma.cc/PXZ4-ZA3A>] (providing statements from Senators Elizabeth

If the pandemic continues and Congress finds the political will to pass additional relief bills tagged to the coronavirus pandemic, there could be opportunity to include privacy protections, with the understanding that there would be considerable difficulty in getting policymaker buy-in to add anything that might jeopardize other interests in an already fraught political environment. To be fair, these challenges would likely exist for other legislative proposals to protect privacy, including the creation of a federal privacy law.

In the absence of more long-term privacy measures, like a federal privacy law or a politically viable federal law specifically aimed at privacy and the coronavirus, privacy advocates can press for privacy measures in other laws, including relief bills aimed at getting Americans through challenging times. Policymakers should consider privacy protections that are: (1) helpful for protecting privacy; (2) minimally intrusive (as in, having a minimal impact on material provisions of the bill); and (3) least likely to attract controversy that could derail the passing of such proposals. An ideal privacy provision would unobtrusively fold in some minor privacy protections. While it may seem counterintuitive to call for less obtrusive, comparatively minor privacy protections, it is more likely that additions of this kind would be able to pass through the legislative process. At the very least, policymakers should consider privacy impacts when drafting terms that apply to new technologies as well as data collection and use involving contact tracing or other forms of medical surveillance.

There are two policy recommendations that policymakers could fold into relief packages in this manner: (1) data transparency and auditability; and (2) data purpose limitation. Adding in mention of the need (or the preference) for data collectors to be transparent about their data practices would be useful, as would a mention that such data transparency could be useful for future audits by regulators (and for public knowledge).¹⁷⁵ Transparency can help bring misuse of data to light, and it can help provide evidence that can foster greater understanding of privacy practices, which in turn can aid in the development of future regulations. Second, purpose limitation would

Warren and Richard Blumenthal describing President Trump's decision to fire the chair as a "clear effort" to "prevent oversight and avoid accountability").

175. See, e.g., Timothy Morey et al., *Customer Data: Designing for Transparency and Trust*, HARV. BUS. REV. (May 2015), <https://hbr.org/2015/05/customer-data-designing-for-transparency-and-trust?registration=success> [<https://perma.cc/8SUU-V299>] (suggesting that data use transparency reinforces trust, which increases the likelihood that consumers share their data).

be helpful to include in any section dealing with COVID-19 testing or other forms of data collection.¹⁷⁶ Privacy protections can be added into sections dealing with education and employment as well as in sections dedicated to health responses. While policymakers can incorporate privacy protections in general COVID-19 relief bills, Congress also can and should pass separate privacy-centered legislation.

B. Coronavirus Privacy Bills

At time of writing, the 116th and 117th Congresses have collectively evaluated two competing bills dedicated solely or primarily to protecting privacy as part of COVID-19 response. Senate Republicans in the 116th Congress introduced the COVID-19 Consumer Data Protection Act of 2020¹⁷⁷ (CCDPA), while Democrats in both houses of Congress have introduced the Public Health Emergency Privacy Act¹⁷⁸ (PHEPA). Both bills address privacy protections for the data collection and tracking measures used in public health response during the COVID-19 pandemic, and both have some similar provisions.¹⁷⁹

Regardless of whether Congress passes any bill on coronavirus and privacy before the end of the pandemic, it is likely that future legislatures will refer to these past bills in future times of public health crisis. Thus, it is helpful to analyze these bills now to begin to establish a scholarly and public understanding of what must be done for the future.

1. The COVID-19 Consumer Data Protection Act of 2020

On April 30, 2020, Republican Senators Roger Wicker (MS), John Thune (SD), Jerry Moran (KS), and Marsha Blackburn (TN) announced a new bill specifically targeting COVID-19 and privacy.¹⁸⁰

176. See Cathy Cosgrove, *Privacy Questions for COVID-19 Testing and Health Monitoring*, IAPP (May 13, 2020), <https://iapp.org/news/a/privacy-questions-for-covid-19-testing-and-health-monitoring> [<https://perma.cc/9T2U-MELG>] (identifying various examples of the widespread sharing of personal data and test results, such as first responders' access to addresses of people who tested positive for COVID-19).

177. COVID-19 Consumer Data Protection Act of 2020, S. 3663, 116th Cong. (2020).

178. Public Health Emergency Privacy Act (PHEPA), S. 3749, 116th Cong. (2020).

179. Compare S. 3663 § 3(a) (outlining privacy measures to protect data collection and tracking), with S. 3749 § 3 (same).

180. COVID-19 Consumer Data Protection Act of 2020, S. 3663, 116th Cong. (2020); see also *Senate Republicans Unveil COVID-19-Specific Privacy Bill*, PRIV. & INFO. SEC. L. BLOG (May 1, 2020), <https://www.huntonprivacyblog.com/2020/05/01/senate-republicans-unveil-covid-19-specific-privacy-bill> [<https://perma.cc/4R5Y-EACZ>]; Cynthia J. Larose, *COVID-19 Privacy Proposals on Both Sides of the Aisle: A Comparison*, NAT'L L. REV., May 28, 2020.

CCDPA included a standard notice-and-consent framework,¹⁸¹ along with the following requirements: purpose limitation, in which organizations can only collect and use data for specific purposes;¹⁸² data minimization, requiring the collection of as little data as possible to achieve purposes of that data;¹⁸³ opt-out rights for individuals, allowing them to revoke consent and triggering an obligation for data holders to delete data;¹⁸⁴ security measures;¹⁸⁵ and transparency, or an affirmative obligation for data holders to have privacy notices and publish transparency reports.¹⁸⁶ The bill would have limited these privacy requirements to only the period of the public health emergency.¹⁸⁷

While the 116th Congress did not act further on the bill, and the current Congress has not reintroduced this bill, there are a few interesting items to note. First, the bill incorrectly defined “aggregated data” as “information that—(A) relates to a group or category of individuals; and (B) does not identify, and is not linked or reasonably linkable to, any individual.”¹⁸⁸ This definition appears to conflate aggregated data and de-identified data, a separate term that later appears in the bill.¹⁸⁹ This misunderstanding, if perpetuated, is concerning not only because it could lead to some confusion in interpretation, but also because it reflects a lack of understanding of key privacy concepts or a conflict between technical voices in drafting.

Next, the bill does do something quite interesting, possibly even radical, in protecting a new category of “proximity data,” defined as “technologically derived information that identifies the past or present proximity of one individual to another.”¹⁹⁰ Proximity data is not a traditionally protected category of data in U.S. privacy jurisprudence or in the privacy legal regimes of most nations.¹⁹¹ However, proximity

181. S. 3663 § 3(a)(1)–(2).

182. *Id.* § 3(a)(3), (b).

183. *Id.* § 3(g).

184. *Id.* § 3(d).

185. *Id.* § 3(h).

186. *Id.* § 3(c).

187. *Id.* § 2(8).

188. *Id.* § 2(1)(A)–(B).

189. *Id.* § 2(9).

190. *Id.* § 2(17).

191. *Cf. supra* notes 110–13 and accompanying text (noting the limited data privacy protections in COPPA and FERPA, both of which lacked protections for proximity data); Todd Ehret, *Data Privacy Laws Collide with Contact Tracing Efforts; Privacy Is Prevailing*, REUTERS (July 21, 2020, 2:36 PM), <https://www.reuters.com/article/bc-finreg-data-privacy-contact-tracing/data-privacy-laws-collide-with-contact-tracing-efforts-privacy-is-prevailing-idUSKCN24MINL> (characterizing U.S. privacy law as a

data has come to the forefront with the rise of contact tracing as a key pandemic response.¹⁹² Protecting proximity data as separate from location data creates unique repercussions for privacy law in the United States and perhaps abroad. While most privacy concerns have focused on privacy for individuals, proximity data brings the concept of group privacy to the stage.¹⁹³

The bill also has a “publicly available information” exception that includes “video, internet, or audio content.”¹⁹⁴ This exception echoes similar publicly available information exceptions in the Genetic Information Nondiscrimination Act of 2008¹⁹⁵ (GINA), as well as other privacy laws.¹⁹⁶ This is interesting because Clearview AI and Palantir proposed COVID-19 responses consisting of facial recognition systems that rely on this exact kind of publicly scrapeable content.¹⁹⁷ Lawmakers face an uphill battle in regulating facial recognition, as current laws and regulations do not protect individuals (or groups) from the harms of facial recognition, in times of pandemic or otherwise.¹⁹⁸ Further, not only does the law not adequately address facial recognition as a form of technology and a manner of

“legal minefield” and a “complex patchwork of regulations” due to the lack of an “overarching federal data privacy regulation”).

192. *Supra* notes 101–02 and accompanying text; *see supra* note 124 and accompanying text (describing Google and Apple’s joint contact tracing application).

193. *See generally* *Group Privacy in the Age of Big Data*, DATA-POP ALL., <https://datapopalliance.org/item/group-privacy-in-the-age-of-big-data> [<https://perma.cc/8JLE-P7B8>] (providing a brief explanation of the rise of group data).

194. S. 3663 § 2(6)(B), (17)(B)(ii).

195. Pub. L. No. 110-233, 122 Stat. 881 (2008) (codified at 42 U.S.C. § 2000ff).

196. *See* S. 3663 § 2(6)(B) (providing an exception for publicly available information); *see also* Genetic Information Nondiscrimination Act of 2008 § 202(b)(4) (same); California Consumer Privacy Act of 2018 § 9 (codified at CAL. CIV. CODE § 1798.140(o)(2) (West 2021)) (same); 201 MASS. CODE REGS. 17.02 (2021) (same).

197. *See, e.g.*, Kashmir Hill, *The Secretive Company that Might End Privacy as We Know It*, N.Y. TIMES (Jan. 31, 2021), <https://www.nytimes.com/2020/01/18/technology/clearview-privacy-facial-recognition.html> [<https://perma.cc/6W48-F662>] (explaining how Clearview AI, a facial recognition application, gathers publicly available photos of people that are posted to “Facebook, YouTube, Venmo and millions of other websites”); Kirsten Grind et al., *To Track Virus, Governments Weigh Surveillance Tools that Push Privacy Limits*, WALL ST. J. (Mar. 17, 2020, 7:55 PM), <https://www.wsj.com/articles/to-track-virus-governments-weigh-surveillance-tools-that-push-privacy-limits-11584479841> [<https://perma.cc/V8JH-76U9>] (describing Palantir’s relationship with the CDC to perform data collection and integration tasks).

198. *See Contract Tracing and Other Innovative Technological Responses*, *supra* note 5, at 10 (explaining that “members of Congress expressed rare bipartisan opposition to facial recognition technology, citing accuracy issues and potential encroachment on constitutionally protected civil liberties”).

surveillance, but the law also does not solve for the privacy harms related to publicly available data (either data that was made public intentionally or through unauthorized means).¹⁹⁹

The bill includes an explicit preemption clause,²⁰⁰ which may prove to be politically untenable, as many states have privacy laws that would conflict with what the bill's sponsors proposed.²⁰¹ Of particular importance to privacy advocates may be the risk that a weaker federal privacy law could preempt provisions in stronger state privacy laws, like the California Consumer Protection Act²⁰² or the Illinois Biometric Information Privacy Act. Ideally, a federal privacy law would be able to incorporate many of the stronger provisions from state laws. In general, by recognizing the gaps in current privacy legislation that exist, this bill adds to the growing movement toward the United States creating and eventually passing legislation that amounts to a federal privacy law.

2. *The Public Health Emergency Privacy Act*

On May 14, 2020, a group of House and Senate Democrats introduced a new bill, the Public Health Emergency Privacy Act, seeking to target contact tracing and other privacy issues related to pandemic response.²⁰³ This bill, like the Republican bill, did not come

199. See Woodrow Hartzog, *The Public Information Fallacy*, 99 B.U. L. REV. 459, 462 (2019) (“Tort law, statutes, and interpretations of constitutional amendments regularly deploy the concept of ‘public information’ to justify surveillance or data practices.”); see also *HiQ Labs, Inc. v. LinkedIn Corp.*, 938 F.3d 985, 1004–05 (9th Cir. 2019) (affirming the district court’s decision that “the public interest favors hiQ’s position” that data scraping helps “maximiz[e] the free flow of information on the Internet”).

200. COVID-19 Consumer Data Protection Act of 2020, S. 3663, 116th Cong. § 4(b)(3) (2020).

201. See Adam Schwartz, *Two Federal COVID-19 Privacy Bills: A Good Start and a Misstep*, EFF (May 28, 2020), <https://www.eff.org/deeplinks/2020/05/two-federal-covid-19-privacy-bills-good-start-and-misstep> [<https://perma.cc/2HW3-4DVB>] (noting that the CCDPA would reduce Californians’ rights to “access, delete, or opt-out of the sale of data collected for COVID purposes” and strip Illinoisans’ legal right “to be free from unconsented biometric surveillance for COVID purposes”); see also Kiran K. Jeevanjee, Comment, *Nice Thought, Poor Execution: Why the Dormant Commerce Clause Precludes California’s CCPA from Setting National Privacy Law*, 70 AM. U. L. REV. F. 75, 129 (2020) (contending that the absence of national privacy legislation will spur states to create their own privacy rules, which will ultimately become “unworkable and costly”).

202. CAL. CIV. CODE § 1798.140(o)(2) (West 2021).

203. Public Health Emergency Privacy Act, S. 3749, 116th Cong. § 3 (2020); see also Margaret Harding McGill, *Democrats Offer Public Health Privacy Legislation*, AXIOS (May 14, 2020), <https://www.axios.com/democrats-privacy-coronavirus-contact-tracing-b495dc29-66cc-4b89-9839-4a171bd48ce3.html> [<https://perma.cc/92BJ-LQ3H>] (characterizing

to pass in 2020. However, after determination of the final results of the 2020 election, including the special run-off election for two Georgia senate seats, Democrats now have a slim majority in both houses of Congress.²⁰⁴ Democrats in both houses reintroduced PHEPA in January 2021, after Congress certified the results of the election.²⁰⁵ At time of writing, it remains to be seen whether the bill will pass, and, if so, in what form. However, because Democrats have control over both houses of Congress and the executive, it is possible that some form of PHEPA will pass.

Similar to CCDPA, PHEPA includes some standard privacy protections, including purpose limitations and reasonable security measures.²⁰⁶ Both bills utilize a basic informed-consent standard for allowing the collection, use, and disclosure of data.²⁰⁷ Both bills include transparency reporting of sorts as a requirement for covered entities.²⁰⁸ One key difference between the bills is that CCDPA only includes private entities under its terms, but PHEPA covers public entities as well.²⁰⁹ PHEPA also has an explicit non-preemption clause.²¹⁰

PHEPA differs from CCDPA in its focus on protecting against discrimination harms. PHEPA includes “reasonable safeguards to prevent unlawful discrimination on the basis of emergency health data” and limitations on disclosure of data to government entities.²¹¹ Perhaps with an eye toward election disturbance and voter rights suppression, this bill also includes a provision prohibiting government entities from denying, restricting, or interfering with the right to vote

PHEPA as a legislative tool designed to enhance trust in the use of technology to obtain data in the fight against COVID-19).

204. Patricia Zengerle & Susan Cornwell, *Democrats Take Narrow Control of U.S. Senate*, REUTERS (Jan. 20, 2021, 4:53 PM), <https://www.reuters.com/article/us-usa-congress/democrats-take-narrow-control-of-u-s-senate-idUSKBN29P2SD> [<https://perma.cc/9MKF-RZZV>] (stating that “for the first time in a decade,” Democrats have control of both houses of Congress).

205. Public Health Emergency Privacy Act, S. 81, 117th Cong. (2021); Public Health Emergency Privacy Act, H.R. 651, 117th Cong. (2021); Miller, *supra* note 121.

206. S. 81 § 3(a)–(b); *see also supra* notes 181–86 and accompanying text (explaining that the Consumer Data Privacy Protection Act of 2020, Senate Republicans’ data privacy bill, also includes purpose limitations and security measures).

207. S. 81 § 3(d); *supra* note 181 and corresponding text.

208. S. 81 § 3(f); *supra* note 186 and corresponding text.

209. Compare S. 81 § 2(4)(A) (defining a “Covered Organization” to encompass government entities), with COVID-19 Consumer Data Protection Act of 2020, S. 3663, 116th Cong. § 2(7)(A)–(C) (defining a “Covered Entity” without explicit reference to government entities).

210. S. 81 § 7.

211. *Id.* § 3(a)(3).

based on an individual's "emergency health data, medical condition, or participation or non-participation in a program to collect emergency health data."²¹²

Of note, PHEPA specifically excludes manual contact tracing and states that "[n]othing in this Act shall be construed to limit or prohibit a public health authority from administering programs or activities to identify individuals who have contracted, or may have been exposed to, COVID-19" through traditional means of human contact tracing.²¹³ PHEPA also includes an exception for public health or scientific research related to the pandemic (by certain entities).²¹⁴

Finally, PHEPA includes a data-deletion provision that requires that data be "destroyed or rendered not linkable in such a manner that is impossible or demonstrably impracticable to identify any individual from the data" after a statutorily defined date.²¹⁵

Given the unified Democratic control of government in Washington, hope for a federal privacy law seems realistic.²¹⁶ However, it is still unclear what will be in that law, whom the law will protect, and how the new law might change our society's relationship with technology.

CONCLUSION

It is not too late to prevent some of the long-lasting harms of privacy violations incurred during this pandemic. To protect privacy in a time of pandemic, we must understand the impact the pandemic has had on society, in context of the larger historical setting of our time. Additionally, we must recognize the ways in which the pandemic has already changed our norms for privacy through novel or increased uses of technology and public health responses involving data and privacy. By addressing these concerns, we can better create laws and other changes to protect privacy in times of public health crisis and chart a path forward for privacy law in this pandemic and after.

212. *Id.* § 4(a).

213. *Id.* § 3(h)(2)(i).

214. *Id.* § 3(j).

215. *Id.* § 3(g)(1)–(2).

216. See Jennifer Bryant, *2021 'Best Chance' for US Privacy Legislation*, IAPP (Dec. 7, 2020), <https://iapp.org/news/a/2021-best-chance-for-federal-privacy-legislation> [<https://perma.cc/P8TV-ZXRD>] (recounting the view of Peter Swire, President Clinton's chief counselor for privacy, that the 117th Congress presents "the best chance for comprehensive federal legislation" that he has ever seen).