

ARTICLES

BEYOND WINDOW DRESSING: PUBLIC PARTICIPATION FOR MARGINALIZED COMMUNITIES IN THE DATAFIED SOCIETY

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We live in a datafied society in which our personal data is being constantly harvested, analyzed, and sold by public and private entities, and yet we have little control over our data and little voice in how it is used. In light of the impacts of algorithmic decision-making systems—including those that run on machine learning and artificial intelligence—there are increasing calls to integrate public participation into the adoption, design, and oversight of these tech tools. Stakeholder input is particularly crucial for members of marginalized groups, who bear the disproportionate harms of data-centric technologies. Yet, recent calls for public participation have been mostly hortatory and without specific strategies or realistic recommendations. As this Article explains, policy makers need not operate from a blank slate. For decades, a variety of American statutory regimes have mandated public participation, such as in the areas of environmental law, land use law, and anti-poverty programs. Such mandates have had outsized effects on communities suffering from economic disadvantage and racial and ethnic discrimination. This Article contends that we should examine these regulatory mandates in thinking about how to include the perspectives of marginalized stakeholders in the datafied society. The core takeaway is that meaningful public participation is extremely challenging and does not happen without intentional and inclusive design. At its best, public input can improve outputs and empower stakeholders. At its worst, it operates as a form of “window dressing,” in which marginalized communities have no real power to effect outcomes, thus generating distrust and alienation. Case studies show that meaningful public participation is most likely to result

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when there are hard-law requirements for public participation and when decision-makers operate transparently and recognize the value of the public's expertise. In addition, impacted communities must be provided with capacity-building tools and resources to support their engagement. As legislative proposals to enhance tech accountability—through algorithmic impact assessments, audits, and other tools—gain steam, we must heed these lessons.

INTRODUCTION.....	504
I. PUBLIC PARTICIPATION FOR ALGORITHMIC ACCOUNTABILITY	509
A. <i>Proposals for Public Participation</i>	510
B. <i>Algorithmic Impact Assessments in Law</i>	513
C. <i>Nonregulatory Approaches to Public Participation</i>	519
II. THEORIZING PUBLIC PARTICIPATION	522
A. <i>Benefits</i>	523
B. <i>Barriers</i>	529
C. <i>Participatory Democracy and Democratic Deliberation</i>	532
III. PUBLIC PARTICIPATION IN LAW	534
A. <i>Environmental Protection</i>	535
B. <i>The War on Poverty</i>	544
C. <i>Land Use</i>	550
CONCLUSION	554

INTRODUCTION

In 2019, the landlord of Atlantic Plaza Towers in Brooklyn, New York, told its tenants that their keys would be replaced with facial recognition technology (FRT).¹ Going forward, they would gaze into a camera rather than use their keys to access their homes. According to the landlord, this technology would lead to enhanced security.² The tenants at the rent-stabilized building, who were primarily low-income women of color, felt differently. As tenant Icemaë Downes said, “We should not feel like we’re in a prison to enter into our homes.”³ The tenants jointly filed a formal complaint, asserting that the technology is an “unnecessary invasive layer

1. Ginia Bellafante, *The Landlord Wants Facial Recognition in Its Rent-Stabilized Buildings. Why?*, N.Y. TIMES (Mar. 28, 2019), <https://www.nytimes.com/2019/03/28/nyregion/rent-stabilized-buildings-facial-recognition.html> [<https://perma.cc/TLY9-C9KZ>].

2. Erin Durkin, *New York Tenants Fight as Landlords Embrace Facial Recognition Cameras*, GUARDIAN (May 30, 2019, 1:00 AM), <https://www.theguardian.com/cities/2019/may/29/new-york-facial-recognition-cameras-apartment-complex> [<https://perma.cc/W6MN-V9KV>].

3. Tanvi Misra, *The Tenants Fighting Back Against Facial Recognition Technology*, BLOOMBERG (May 7, 2019, 1:35 PM), <https://www.bloomberg.com/news/articles/2019-05-07/when-facial-recognition-tech-comes-to-housing> [<https://perma.cc/W5B6-APRG>].

which the Owner has yet to establish provides any additional or needed security.”⁴ These tenants were well aware of the dangers of facial recognition technology: its low accuracy rates for women and people of color, with attendant risks of mistaken identity,⁵ its accessibility to law enforcement without a warrant,⁶ and its chilling effects on free expression.⁷ After intense public scrutiny, the landlord ultimately dropped the plan.⁸ Yet, if the landlord had asked for the tenants’ input in advance, or if the city had adopted laws or guidance for tenant input into appropriate uses of algorithmic decision-making systems, the situation may never have devolved into protests and litigation. Perhaps, through public participation, the tenants and the landlord could have identified building-access tools that did not demean and demoralize tenants, while meeting the landlord’s proclaimed desire for security. Without mechanisms for public input, that opportunity was lost.

In light of the impacts of algorithmic decision-making systems, including those that run on machine learning and artificial intelligence (AI), there are increasing calls to integrate public participation into the adoption, design, and oversight of these tech tools.⁹ Within political theory and the field of public

4. The Owner’s Application for Modification of Servs. at 18, Nos. GS2100050D & GS2100080D (N.Y. State Hous. & Cmty. Renewal Apr. 30, 2019), <https://www.legalservicesnyc.org/storage/PDFs/%20opposition%20to%20facial%20recognition%20entry%20system%20app.pdf> [<https://perma.cc/G474-4BQ3>].

5. Joy Buolamwini & Timnit Gebru, *Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification*, 81 PROC. MACH. LEARNING RSCH. 77, 85–86 (2018) (error rates for lighter-skinned men were lower than 1 percent, while error rates for women of color were up to 33 percent).

6. Clare Garvie, Alvaro Bedoya & Jonathan Frankle, *The Perpetual Line-Up: Unregulated Police Face Regulation in America*, GEO. L. CTR. ON PRIV. & TECH. (Oct. 18, 2016), <https://www.perpetuallineup.org/> [<https://perma.cc/A9PG-D43F>].

7. See Evan Selinger & Woodrow Hartzog, *The Inconsistency of Facial Surveillance*, 66 LOY. L. REV. 101, 105 (2019).

8. Yasmin Gagne, *How We Fought Our Landlord’s Secretive Plan for Facial Recognition—and Won*, FAST CO. (Nov. 22, 2019), <https://www.fastcompany.com/90431686/our-landlord-wants-to-install-facial-recognition-in-our-homes-but-were-fighting-back> [<https://perma.cc/PK9F-U8HT>].

9. See, e.g., Philip Alston (Special Rapporteur on Extreme Poverty and Human Rights), *Rep. on Extreme Poverty and Human Rights*, U.N. Doc. A/74/493, at 14 (Oct. 11, 2019) (explaining that, with regard to digital welfare systems, “meaningful input is rarely sought from stakeholders and accountability mechanisms are absent”); Dorothy E. Roberts, *Digitizing the Carceral State*, 132 HARV. L. REV. 1695, 1728 (2019) (reviewing VIRGINIA EUBANKS, *AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR* (2018)) (“[W]e could put in place democratic frameworks that allow the public, especially people from the most marginalized communities, to participate in technology development and management”); John Logan Koepke & David G. Robinson, *Danger Ahead: Risk Assessment and the Future of Bail Reform*, 93 WASH. L. REV. 1725, 1731 (2018) (arguing that, with regard to pretrial risk assessments used in bail determinations, “the communities most impacted by mass incarceration [should be] directly involved in shaping the tools and frameworks”); Catherine Crump, *Surveillance Policy Making by Procurement*, 91 WASH. L. REV. 1595, 1655 (2016) (describing the harms of surveillance technologies that result when “the federal government fails to ensure that local elected officials and members of the public are involved in decisions about surveillance technology acquisition”); Sarah Valentine, *Impoverished Algorithms: Misguided Governments, Flawed Technologies, and Social Control*, 46 FORDHAM URB. L.J. 364, 376 (2019) (urging governments to provide “ample opportunities for public input prior to purchasing big data systems”); Danielle Keats Citron,

administration, public participation is touted for increasing knowledge about problems and solutions, improving the outcome of decisions, and bringing social values into technical and scientific decision-making.¹⁰ In addition, it can imbue participants with greater civic skills, redistribute power, and enhance the legitimacy of decision-making.¹¹ Nevertheless, public participation is not a panacea, and the barriers to meaningful participation are many.¹² It can be challenging for laypeople to participate when the policies at issue are complex.¹³ Moreover, traditional participatory mechanisms involve notice and comment and/or public hearings in which citizens can feel like they are engaged in a ritualistic process with no real opportunity to have an impact.¹⁴ Further, people who show up to participate tend to have greater socioeconomic resources, while marginalized groups can struggle to access participatory processes or to be taken seriously.¹⁵ Even worse, policy makers

Technological Due Process, 85 WASH. U. L. REV. 1249, 1312 (2008) (“[A]gencies should explore ways to allow the public to participate in the building of automated decision systems.”); DILLON REISMAN, JASON SCHULTZ, KATE CRAWFORD & MEREDITH WHITTAKER, AI NOW INST., ALGORITHMIC IMPACT ASSESSMENTS: A PRACTICAL FRAMEWORK FOR PUBLIC AGENCY ACCOUNTABILITY 4 (2018), <https://ainowinstitute.org/aiareport2018.pdf> [<https://perma.cc/5BC6-Y43K>] (“Agencies should solicit public comments to clarify concerns and answer outstanding questions”); BECKY CHAO, ERIC NULL, BRANDI COLLINS-DEXTER & CLAIRE PARK, NEW AM., CENTERING CIVIL RIGHTS IN THE PRIVACY DEBATE 20 (2019), https://d1y8sb8igg2f8e.cloudfront.net/documents/Centering_Civil_Rights_in_the_Privacy_Debate_2019-09-17_152828.pdf [<https://perma.cc/J3W9-GWU2>] (“Impacted communities—especially Black communities—must be included in discussions about privacy”); Margot E. Kaminski & Gianclaudio Malgieri, *Algorithmic Impact Assessments Under the GDPR: Producing Multi-Layered Explanations*, 11 INT’L DATA PRIV. L. 125, 139 (2021) (impact assessments “should better involve and engage impacted individuals, not just through surveys but through representative boards, before an algorithm is deployed”); AI NOW INST., CONFRONTING BLACK BOXES: A SHADOW REPORT OF THE NEW YORK CITY AUTOMATED DECISION SYSTEM TASK FORCE 23 (Rashida Richardson ed., 2019), <https://ainowinstitute.org/ads-shadowreport-2019.html> [<https://perma.cc/7EDY-47UW>] (agencies in New York City should “ensure robust and comparable participation among experts and individuals affected by ADS [(automated decision system)] use”); WORLD ECON. F., GLOBAL TECHNOLOGY GOVERNANCE: A MULTISTAKEHOLDER APPROACH 4 (2019), https://www3.weforum.org/docs/WEF_Global_Technology_Governance.pdf [<https://perma.cc/WW7M-NQFB>] (calling for “participatory approaches to technology governance”).

10. See Ank Michels, *Innovations in Democratic Governance: How Does Citizen Participation Contribute to a Better Democracy?*, 77 INT’L REV. ADMIN. SCIS. 275, 278–79 (2011).

11. See Nancy Roberts, *Public Deliberation in an Age of Direct Citizen Participation*, 34 AM. REV. PUB. ADMIN. 315, 315–16 (2004) (summarizing arguments for and against citizen participation); Judith E. Innes & David E. Booher, *Reframing Public Participation: Strategies for the 21st Century*, 5 PLAN. THEORY & PRAC. 419, 423 (2004) (discussing purposes of public participation, including “getting legitimacy for public decisions”).

12. See Renée A. Irvin & John Stansbury, *Citizen Participation in Decision Making: Is It Worth the Effort?*, 64 PUB. ADMIN. REV. 55, 58–60 (2004) (summarizing disadvantages of citizen participation).

13. See generally Gene Rowe & Lynn J. Frewer, *Public Participation Methods: A Framework for Evaluation*, 25 SCI. TECH. & HUM. VALUES 3, 5 (2000).

14. See Innes & Booher, *supra* note 11, at 423.

15. See LaToya Baldwin Clark, *The Problem with Participation*, MOD. AM., Summer 2013, at 20, 22 (“Participation . . . can only be a fair way to distribute resources if those called to participate are equitably equipped to be full participants, and to capture scarce resources in the form of services and attention.”); see also Archon Fung, *Putting the Public Back into*

can use public participation as a form of “window dressing” to approve controversial policies, generating distrust and potentially alienating communities from the political process.¹⁶ In light of the power imbalances embedded in technological systems, there is a growing concern that “participation-washing,” or purely performative participation without attention to power dynamics, could become the “next dangerous fad.”¹⁷

The stakes are high. We live in a datafied society in which our personal data is being constantly harvested, analyzed, and sold by public and private entities, and yet we have little control over our data and little voice in how it is used.¹⁸ Businesses earn millions of dollars from consumers’ personal data, using it to target people for ads urging them to book a certain hotel room or to buy a certain running shoe, and then to decide how much they will pay for those goods as compared to their neighbors.¹⁹ More significantly, the big data ecosystem acts as a gatekeeper to life’s necessities, such as jobs, housing, and education. Algorithms—or computerized decision-making systems—determine who will be tracked by the police and who will roam freely, who will obtain an affordable mortgage and who will be redlined into predatory loans, and who will attend an affordable college to obtain a degree that leads to a job and who will be targeted for high-interest loans at a for-profit school that leaves them indebted and unlikely to graduate.²⁰

Low-income people are usually on the losing end of these sorting systems.²¹ They are relentlessly pursued across the internet with offers for subprime financial products and services; indeed, an entire consumer reporting industry exists to scrape data about vulnerable consumers and sell it to interested industries.²² At the same time, they are excluded from mainstream opportunities in employment, housing, education, health care,

Governance: The Challenges of Citizen Participation and Its Future, 75 PUB. ADMIN. REV. 513, 514–15 (2015); Innes & Booher, *supra* note 11, at 423.

16. See Jaime Alison Lee, “Can You Hear Me Now?”: Making Participatory Governance Work for the Poor, 7 HARV. L. & POL’Y REV. 405, 413–17 (2013) (describing the harms of cosmetic participatory processes); Ngozi Okidegbe, *The Democratizing Potential of Algorithms?*, 53 CONN. L. REV. 739, 745 (2022) (warning of the “vener of communal approval”).

17. Mona Sloane, *Participation-Washing Could Be the Next Dangerous Fad in Machine Learning*, MIT TECH. REV. (Aug. 25, 2020), <https://www.technologyreview.com/2020/08/25/1007589/participation-washing-ai-trends-opinion-machine-learning/> [<https://perma.cc/YY26-AP68>].

18. See SARAH E. IGO, *THE KNOWN CITIZEN: A HISTORY OF PRIVACY IN MODERN AMERICA* 353–55 (2018).

19. See generally WOLFIE CHRISTL, *CRACKED LABS, CORPORATE SURVEILLANCE IN EVERYDAY LIFE* (2017), https://crackedlabs.org/dl/CrackedLabs_Christl_CorporateSurveillance.pdf [<https://perma.cc/9DV9-GPG2>].

20. See Michele E. Gilman, *Five Privacy Principles (from the GDPR) the United States Should Adopt to Advance Economic Justice*, 52 ARIZ. ST. L.J. 368, 375–90 (2020) (describing impacts of algorithmic decision-making on low-income people and minority groups).

21. See generally CATHY O’NEIL, *WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY* (2016).

22. See CONSUMER FIN. PROT. BUREAU, *LIST OF CONSUMER REPORTING COMPANIES* (2021), https://files.consumerfinance.gov/f/documents/cfpb_consumer-reporting-companies-list_2022-01.pdf [<https://perma.cc/B764-KD7R>].

and financial services due to unfavorable digital profiling systems that amass millions of data points about consumers and segment them into fine-grained categories of worthiness. To obtain public benefits, low-income people must navigate complex and often inaccessible online platforms that are not designed with their needs in mind. These automated decision-making systems often deny or reduce benefits without transparency or due process, leaving thousands of people adrift without state support or any justification.²³ Layered on top of this data profiling are surveillance tools, such as facial recognition technology, that are increasingly deployed in workplaces, schools, and public housing projects to control poor and underrepresented populations.²⁴ School surveillance of student computers feeds the school-to-prison pipeline; predictive policing algorithms reinforce and expand policies of over-policing and mass incarceration; and workplace algorithms monitor low-wage workers and shape their performance in ways that cause physical and psychological injuries.²⁵ In short, marginalized people disproportionately bear the brunt of harms in a datafied society.

As a result, in crafting public participation mandates for algorithmic systems, the needs of marginalized persons should be central.²⁶ Yet, recent calls to center the voices of marginalized groups within public participation mechanisms for technological systems have been mostly hortatory, without specific strategies or realistic recommendations.²⁷ Nevertheless, policy makers need not operate from a blank slate. Various American statutory regimes have mandated public participation for decades, such as in the areas of environmental law, land use law, and anti-poverty programs, each of which has outsized effects on communities suffering from economic disadvantage and racial and ethnic discrimination. This Article contends that we should examine these regulatory mandates for public participation in thinking about how best to include the perspectives of marginalized stakeholders in the datafied society in order to reduce the harmful impacts of algorithmic systems on vulnerable communities. In surveying these other regulatory regimes, the core takeaway is that meaningful inclusion of

23. See generally Valentine, *supra* note 9.

24. See Gilman, *supra* note 20, at 394–99.

25. *Id.* at 387.

26. In using the term “marginalized,” this Article does not intend to flatten the unique experiences and histories of different groups and individuals in the United States. The term is used to describe groups who have been subject to structural forms of oppression at the hands of state and private entities, such as a denial of voting rights and political power, lack of equal access to capital and job opportunities, and segregated housing and educational systems. Despite these overlapping forms of oppression, these groups—which include Black, Latinx, Indigenous, and Asian Americans, as well as low-income people of all racial, ethnic, and gender backgrounds—have lengthy histories of resistance and resilience. In using the term “marginalized,” this Article focuses on the largely shared experience of these groups, which consists of newly emerging modes of oppression and discrimination that are embedded in algorithmic systems. On the challenges of using anti-racist language that is accurate and centers the experiences of the people being described, see generally Meera E. Deo, *Why BIPOC Fails*, 107 VA. L. REV. ONLINE 115 (2021).

27. One notable exception is advanced by Okidegbe, *supra* note 16 (discussing the need for input by marginalized communities in algorithms used in bail decisions).

disadvantaged groups in policymaking is extremely challenging, and it fails more often than it succeeds. The window dressing critique is a serious one. Nevertheless, public participation can work when lawmakers and agencies craft intentional and inclusionary structures that grant stakeholders some level of power to effect outcomes. As public participation mandates are integrated into new laws for algorithmic accountability, we should heed these lessons.

Part I traces emerging tech governance statutes and proposals that adopt a participatory norm. Algorithmic impact assessments (AIAs) have emerged as the front-runner for enhancing fairness, transparency, and accountability; they generally involve multiple stakeholders in a formal, evaluative process that documents the anticipated impacts of algorithmic systems. Unfortunately, most AIA proposals give short shrift to public participation and thus risk involving citizens in mere window dressing processes—i.e., appearing to engage the public, but in fact using their presence to rubber-stamp predetermined outcomes. Part I compares AIAs to participatory design principles and tech resistance movements, which also bring public participation into the datafied society, but without a regulatory mandate. Part II analyzes the theoretical foundation for folding public participation into laws governing data-centric technologies. Public participation models differ widely in the amount of power they grant to citizens, with consequences not only for the substantive legal regime at issue, but also for democracy. Moreover, public participation within the datafied society poses particular benefits and drawbacks given the complexities of technological systems, their lack of transparency, and the compounding of algorithmic harms on marginalized communities. Thus, to avoid the perils of window dressing, models of public participation should be intentionally crafted with clear goals in mind. To guide the development of these models, Part III looks to public participation mandates and their impact on marginalized communities in other legal regimes, including environmental law, land use laws, and anti-poverty programs. This part reflects on the effectiveness of these mandates for enhancing democracy for marginalized communities and suggests lessons for drafters of public participation requirements within algorithmic governance regimes.

I. PUBLIC PARTICIPATION FOR ALGORITHMIC ACCOUNTABILITY

Computer scientists frame concerns and evaluate solutions for algorithmic systems through the values of fairness, transparency, and accountability.²⁸ Algorithmic impact assessments (AIAs) have emerged among policy makers, academics, and advocates as a front-runner for incorporating these values into technological regimes.²⁹ AIAs generally involve an analysis of the

28. See Donghee Shin & Yong Jin Park, *Role of Fairness, Accountability, and Transparency in Algorithmic Affordance*, 98 *COMPUTS. HUM. BEHAV.* 277, 277 (2019).

29. Requiring audits is another popular proposal for enhancing tech accountability, although such proposals do not generally envision a strong role for the community. The term “algorithmic audit” generally means “almost any kind of empirical study of algorithms.”

proposed or existing societal impacts of an algorithmic system.³⁰ AIAs hold significant potential for enhancing public participation. However, the mechanisms for engaging the public in the AIA process have not been fully theorized or implemented. Nor has attention been paid to the particular needs of marginalized people and the barriers they face in public participation regimes. Given that marginalized people are disproportionately disadvantaged by algorithmic systems, this oversight risks reinforcing algorithmic harms. Accordingly, this part surveys the landscape of proposed and existing AIA mandates to identify how public participation is playing a role in algorithmic accountability proposals. Overall, existing notions of public participation within algorithmic accountability are modest or undeveloped.³¹

A. *Proposals for Public Participation*

Numerous scholars, tech industry insiders, and civil society researchers have proposed the adoption of AIAs, and in response, some state and local jurisdictions have passed laws that include AIA-style requirements.³² They aim to bring social values into technical systems and “to create and provide documentation of the decisions made during development and their rationales, which in turn can lead to better accountability for those decisions and useful information for future policy interventions.”³³ Conceptually, AIAs are modeled after environmental impact assessments, which are legally required before any federal agency action impacting the environment is

BRIANA VECCHIONE, SOLON BAROCAS & KAREN LEVY, ALGORITHMIC AUDITING AND SOCIAL JUSTICE: LESSONS FROM THE HISTORY OF AUDIT STUDIES 2 (2021), <https://dl.acm.org/doi/pdf/10.1145/3465416.3483294> [<https://perma.cc/UBX5-PE5L>] (exploring the different goals of audits and possibilities for community engagement); see also Khari Johnson, *The Movement to Hold AI Accountable Gains More Steam*, WIRED (Dec. 2, 2021, 7:00 AM), <https://www.wired.com/story/movement-hold-ai-accountable-gains-steam/> [<https://perma.cc/E3JN-UNBD>] (discussing proposals for AIAs, as well as auditing requirements); ADA LOVELACE INST., EXAMINING THE BLACK BOX: TOOLS FOR ASSESSING ALGORITHMIC SYSTEMS (2020), <https://www.adalovelaceinstitute.org/wp-content/uploads/2020/04/Ada-Lovelace-Institute-DataKind-UK-Examining-the-Black-Box-Report-2020.pdf> [<https://perma.cc/93RJ-WZJN>] (describing the differences between algorithmic audits and impact assessments). AI registers are another experimental mechanism for enhancing transparency; they are public lists of government-adopted algorithmic systems. See Luciano Floridi, *Artificial Intelligence as a Public Service: Learning from Amsterdam and Helsinki*, 33 PHIL. & TECH. 541 (2020) (describing the first two cities to adopt open-AI registers).

30. See Andrew D. Selbst, *An Institutional View of Algorithmic Impact Assessments*, 35 HARV. J.L. & TECH. 117, 127 (2021) (“An Algorithmic Impact Assessment is a process in which the developer of an algorithmic system aims to anticipate, test, and investigate potential harms of the system before implementation; document those findings; and then either publicize them or report them to a regulator.”).

31. See *id.* at 160 (“Though many of the specific AIA proposals envision input from affected communities, none of the proposals has much detail or a workable vision for how to accomplish it.”). Professor Andrew D. Selbst notes that while many developers focus on testing the user experience, this does not engage with the people “who are subject to decisions that the systems are used for.” *Id.* at 184.

32. *Id.* at 122–23.

33. *Id.* at 122.

undertaken.³⁴ AIAs also share lineage with impact assessments in other areas such as the human rights and privacy practices of government agencies.³⁵ AIA proposals vary widely in their details.³⁶ For instance, an AIA can be undertaken at multiple points during an algorithmic system's life cycle—before an automated decision-making system is deployed, during its operation, or at all phases.³⁷ Some AIA models apply only to government agencies, others focus on private entities, and some cover both.³⁸ Some rely on voluntary compliance, while others are legally mandated.³⁹

Another point of difference is the extent to which public disclosure and participation are folded into the assessment process. Academic proposals borrow heavily from the Environmental Impact Statement (EIS) model, although those proposals have not emphasized public participation to the same extent that environmental law requires it.⁴⁰ Professor Andrew Selbst is the leading theorist on the ways in which AIAs can enhance algorithmic decision-making and goes the furthest in envisioning a role for the public. He explains the value of the AIA process:

Given the information disparities between developers on the one hand, and policymakers and the public on the other, regulation that can slow down the development process, create pathways for public input, and push information out to the public can be an important step toward both mitigating current harms and developing better, more concrete regulation in the future.⁴¹

With regard to the public sphere, he recommends mandatory “algorithmic impact statements” for police departments that adopt predictive policing

34. *Id.* at 127. Environmental impact assessments are discussed at length *infra* Part III.A.

35. Selbst, *supra* note 30, at 122.

36. See EMANUEL MOSS, ELIZABETH ANNE WATKINS, RANJIT SINGH, MADELEINE CLARE ELISH & JACOB METCALF, DATA & SOC'Y, ASSEMBLING ACCOUNTABILITY: ALGORITHMIC IMPACT ASSESSMENT FOR THE PUBLIC INTEREST (2020), <https://datasociety.net/wp-content/uploads/2021/06/Assembling-Accountability.pdf> [<https://perma.cc/S75G-PD9U>]. This report lists ten constitutive components that can vary widely but are generally shared by algorithmic assessments. *Id.*

37. ADA LOVELACE INST., *supra* note 29, at 5.

38. *Id.* at 18.

39. MOSS ET AL., *supra* note 36, at 51.

40. Professor Sonia Katyal proposes to reduce algorithmic bias and discrimination in private automated systems through “human impact statements,” which would “create a framework for awareness” of “how big data can impact certain groups,” but she does not offer mechanisms for public input in her proposal. Sonia K. Katyal, *Private Accountability in the Age of Artificial Intelligence*, 66 UCLA L. REV. 54, 115, 117 (2019) (“The advantage of employing a rigorous system of impact statements stems from enlisting engineers to explain their design choices, evaluate their efficacy, include alternative configurations, and consider whether any disparate impact has been created for a subpopulation.”). Similarly, Professor A. Michael Froomkin suggests regulating mass surveillance in public and virtual spaces through “privacy impact notices” that would assess “the broader societal impacts of surveillance on society” as a way to encourage “greater incentives to build in privacy protections.” A. Michael Froomkin, *Regulating Mass Surveillance as Privacy Pollution: Learning from Environmental Impact Statements*, 2015 U. ILL. L. REV. 1713, 1747, 1752. He does not, however, describe the public's role in this process beyond suggesting that the EIS process for public comment would be mirrored in his proposal.

41. Selbst, *supra* note 30, at 125.

technologies; these tools use data mining techniques to predict crime and raise serious risks of producing racist outcomes.⁴² Selbst states that public comment is an “incredibly important part” of his proposal that is not “a panacea,” but that would surface issues around fairness and public values.⁴³ With regard to the private sphere, Selbst explains how AIAs can shine a light on algorithmic harms, which are mostly “unknown and hard-to-measure.”⁴⁴ Still, AIAs can raise concerns of self-interest and bias because they are implemented by the same firms that they seek to regulate.⁴⁵ Thus, he explores the institutional dynamics within organizations, concluding that the most realistic outcome of the AIA process will be “produc[ing] information needed for better policy and public understanding.”⁴⁶ He acknowledges the hurdles to involving the community in a meaningful way,⁴⁷ noting that existing scholarship is “unsatisfying” and calling for greater engagement and consideration on these issues.⁴⁸

For their part, civil society groups have articulated a robust role for public input in algorithmic systems. In 2018, the AI Now Institute proposed an influential, albeit unadopted, algorithmic impact assessment process for New York City public agencies that adopt automated decision systems.⁴⁹ AI Now described the myriad of algorithmic systems used by the city, ranging from predictive policing to optimizing energy use to evaluating public school teachers. The AI Now framework for AIAs is designed “to support affected communities and stakeholders as they seek to assess the claims made about these systems.”⁵⁰ It intentionally involves “a wide range of individuals, communities, researchers, and policymakers to participate in accountability efforts.”⁵¹ Under the proposal, once an agency discloses that it will adopt an automated decision system, there is a period for public comment, as well as a subsequent opportunity for the public to challenge noncompliant agencies. AI Now calls on public agencies to “proactively engage affected communities to ensure that a system meets a given community’s goals”⁵² in order to accurately assess cultural and social harms.⁵³

Researchers at Data & Society have examined impact assessments in a variety of regimes to identify their constitutive components, pinpoint the conditions under which they succeed or fail, and suggest a menu of options for policy makers in crafting AIA mandates. They find that public consultation can be a “hollow requirement” if it lacks goals beyond “mere

42. Andrew D. Selbst, *Disparate Impact in Big Data Policing*, 52 GA. L. REV. 109, 115, 118 (2017).

43. *Id.* at 178.

44. Selbst, *supra* note 30, at 123.

45. *Id.* at 124.

46. *Id.*

47. *Id.* at 160–61.

48. *Id.* at 160.

49. *See generally* REISMAN ET AL., *supra* note 9.

50. *Id.* at 4.

51. *Id.* at 7.

52. *Id.* at 15.

53. *Id.* at 18.

notification.”⁵⁴ Further, vulnerable individuals and communities may lack knowledge of the harms they face from algorithmic systems, the remedy for which requires education, outreach, and engagement efforts, as well as compensation for time expended.⁵⁵ The Data & Society criteria for building an AIA are attentive to the power imbalances implicated in public participation processes. These civil-society visions for meaningful public input are largely missing in existing and proposed regulatory reforms.

B. Algorithmic Impact Assessments in Law

How have these ideas been translated into the real world? This section describes proposed bills and enacted laws that require AIA-type processes, starting with the most broadly applicable law on a jurisdictional basis and ending with the narrowest.⁵⁶ Overall, robust public participation rights remain elusive, other than in the context of a handful of municipal statutes governing surveillance.

In the European Union, the General Data Protection Regulation (GDPR), in effect since 2018, governs the collection and flow of personal data for EU residents.⁵⁷ The GDPR places multiple obligations on the entities that gather, hold, and use personal data (called “data controllers”), while also granting consumers (called “data subjects”) certain qualified rights to control their personal information.⁵⁸ The GDPR requires some level of public participation through Data Protection Impact Assessments (DPIAs), which are reports that data controllers must prepare whenever automated processing, particularly using new technologies, “is likely to result in a high risk to the rights and freedoms of natural persons.”⁵⁹ A DPIA must contain a description of the intended processing and its purposes, the necessity and proportionality of the processing, the risks to the rights and freedoms of data

54. MOSS ET AL., *supra* note 36, at 21.

55. *See generally id.*

56. For a list of algorithmic accountability tools used in the public sector, see ADA LOVELACE INST., AI NOW INST. & OPEN GOV'T P'SHIP, ALGORITHMIC ACCOUNTABILITY FOR THE PUBLIC SECTOR 9 (2021), <https://www.opengovpartnership.org/wp-content/uploads/2021/08/algorithmic-accountability-public-sector.pdf> [<https://perma.cc/9VF5-552H>]. In reviewing these AIA mechanisms, the authors conclude that “[m]ost of the AIA mechanisms reviewed do not establish clear processes for public participation, for ensuring transparency or public access to the outcomes, or clear lines of accountability linking back to the use of algorithmic systems by public agencies.” *Id.* at 23.

57. Regulation 2016/679, General Data Protection Regulation, 2016 O.J. (L 119) 1 (EU).

58. *Id.* art. 4(7), (1). “Personal data” is defined as “any information relating to an identified or identifiable natural person.” *Id.* art. 4(1). For instance, under the GDPR, data subjects have rights to request an explanation for algorithmic outputs, to erase certain personal data from online databases, and to withdraw their consent from data processing. *Id.* art. 15(1)(h) (right to explanation); *id.* art. 17 (right to be forgotten); *id.* arts. 7(3), 21 (right to withdraw consent).

59. *Id.* art. 35. High-risk situations include profiling that has significant effects, processing of sensitive categories of personal data (including criminal convictions), and large-scale monitoring of public areas. *Id.*

subjects, and the steps and safeguards the controller is taking to protect personal data.⁶⁰

Data subjects have a role in the DPIA process, albeit one that remains undefined: “Where appropriate, the controller shall seek the views of data subjects or their representatives on the intended processing”⁶¹ The Article 29 Working Party, an advisory body that interprets the GDPR, has further elaborated on DPIAs through a set of guidelines.⁶² The guidelines suggest that controllers can obtain public views through a variety of means, including “survey[s] sent to the data controller’s future customers,”⁶³ as well as through expert consultations with lawyers, IT experts, sociologists, and ethicists.⁶⁴ DPIAs are not required to be made public, although the guidelines recommend it,⁶⁵ and DPIAs are not automatically reviewed by any government authority. Accordingly, they have been critiqued for failing to require adequate public input or disclosure. To strengthen the accountability mechanisms of DPIAs, Professors Margot Kaminski and Gianclaudio Malgieri urge for the adoption of stronger requirements for public input, advocating that DPIAs should “better involve and engage impacted individuals, not just through surveys but through representative boards.”⁶⁶ They also encourage “companies, or regulators, to help fund the involvement” of impacted individuals and to “provide technical expertise or the resources for obtaining technical expertise.”⁶⁷

In an approach that differs from the European Union’s with the GDPR, Canada has adopted a scored model of algorithmic accountability. Since April 2020, a Directive on Automated Decision-Making has required Canadian federal government agencies to perform algorithmic impact assessments.⁶⁸ The assessments consist of a rubric of sixty questions that aim to assess the risks of an automated system based on factors such as individual rights, well-being, and economic interests.⁶⁹ Critics of the

60. *Id.* art. 35(7)(a)–(d).

61. *Id.* art. 35(9).

62. EUROPEAN COMM’N, GUIDELINES ON DATA PROTECTION IMPACT ASSESSMENT (DPIA) AND DETERMINING WHETHER PROCESSING IS “LIKELY TO RESULT IN A HIGH RISK” FOR THE PURPOSES OF REGULATION 2016/679, at 13 (2017), <https://ec.europa.eu/newsroom/article29/items/611236> [<https://perma.cc/4CXW-5M6L>] (click on link).

63. *Id.*

64. *Id.* at 14.

65. *Id.* at 17.

66. Kaminski & Malgieri, *supra* note 9, at 139.

67. *Id.* Kaminski and Malgieri highlight the ways in which DPIAs function as a bridge between the GDPR’s individual-rights framework and its cooperative, public/private governance system. The DPIA tasks companies with engaging in a “form of monitored self-regulation” that “consider[s] risks of unfairness, error, bias, and discrimination, and . . . com[es] up with concrete ways of mitigating those risks.” *Id.* at 131.

68. *Algorithmic Impact Assessment Tool*, GOV’T OF CAN. (Apr. 19, 2022), <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai/algorithmic-impact-assessment.html> [<https://perma.cc/8VVA-2F9K>].

69. *Id.* Depending on the score, the system is sorted into a tier of highest to lowest risk, and additional accountability requirements—such as peer review, public notice, and human involvement in decision-making—hinge on these scores. *Id.*

Canadian system note that a scored, yes/no rubric is a particularly shallow form of accountability because it does not require an accounting of the workings of the automated decision system, a description of the epistemic practices and metrics used, or even details on how such systems are assembled.⁷⁰ Furthermore, public input has no role in the assessment.

The United States has not yet enacted a comprehensive algorithmic accountability or data privacy law. In 2022, a proposed federal privacy law called the American Data Privacy and Protection Act⁷¹ (ADPPA) made it further along in the legislative process than any of its many predecessors, clearing the House Committee on Energy and Commerce by a vote of 53–2.⁷² Its chances of passage by the full Congress are mixed,⁷³ but even if it fails to move forward in 2022, it is the result of intense bipartisan negotiations and thus the likely template for any future bills. In its current form, the ADPPA requires large companies to conduct annual algorithm impact assessments that describe the purpose and design process for their algorithms, the data inputs and proposed outputs, and the steps the company has taken to mitigate potential harms, including injuries to civil rights.⁷⁴ In conducting the assessments, companies must use external, independent auditors or researchers and submit the assessments to the Federal Trade Commission, with an option to make a summary publicly available.⁷⁵ Large companies are also required to conduct biennial, written privacy impact assessments weighing the benefits of data processing against the potential adverse consequences to individual privacy interests.⁷⁶ Further, regardless of size, all companies that process covered data are required to proactively evaluate the risks of their automated decision-making systems.⁷⁷ Notably, however, the ADPPA does not require—or even mention—a role for public consultation in any of these assessments or evaluations.⁷⁸

70. MOSS ET AL., *supra* note 36, at 32; *see also* Selbst, *supra* note 30, at 148 (“While the questions that the Canadian AIA asks are thoughtful, they are fixed and quite general.”).

71. American Data Privacy and Protection Act, H.R. 8152, 117th Cong. (2022).

72. In general, the bill requires covered entities to minimize the amount of data they collect, provides consumers with a series of rights to control the collection and use of their data, and bans targeted advertising to children and to any persons who opt out. *Id.* §§ 101, 201–210. It bolsters civil rights by forbidding the use of covered data in a manner that discriminates on the basis of race, color, religion, national origin, sex, or disability. *Id.* § 207(a). It compromises on two long-standing political sticking points—allowing federal preemption of most state laws (favored by Republicans), as well as a private right of action to enforce its provisions (favored by Democrats). *Id.* §§ 204(b), 403(a).

73. *See* Cristiano Lima, *Top Senate Democrat Casts Doubt on Prospect of Major Data Privacy Bill*, WASH. POST (June 22, 2022, 2:15 PM), <https://www.washingtonpost.com/technology/2022/06/22/privacy-bill-maria-cantwell-congress/> [<https://perma.cc/JEL9-Z6BP>] (discussing objections from Democratic senators concerned about the bill’s preemption provisions).

74. H.R. 8152 § 207(c).

75. *Id.*

76. *Id.* § 301(d).

77. *Id.* § 207(c)(2).

78. It is possible that such requirements would be set forth in implementing regulations issued by the Federal Trade Commission. *Id.* § 207(c)(5).

Given that the United States continues to lack a comprehensive data privacy law, some states are moving to fill the gap. The first comprehensive data privacy law among the states was the California Consumer Privacy Act⁷⁹ (CCPA), which went into effect in January 2020.⁸⁰ It gives consumers certain rights to control the personal data that businesses collect about them, including a right to know what information is collected and how it is used. The CCPA requires the California attorney general to solicit public opinion in crafting regulations (a regular feature of administrative rulemaking),⁸¹ but it does not appear to require ongoing public participation in monitoring the law's implementation as does the GDPR, as it does not require any sort of impact assessment.⁸² However, in January 2023, the California Privacy Rights Act⁸³ (CPRA) will fully supplant the CCPA.⁸⁴ The CPRA mandates regular risk assessments for processing activities that present "significant risk" to consumers.⁸⁵ The assessment must indicate whether data processing involves sensitive personal information, and it must identify and weigh the benefits resulting from data processing against the potential risks to consumers.⁸⁶ The CPRA does not expressly mention public participation in connection with the assessment process, although the public will have opportunities to comment on implementing regulations and, in turn, those regulations might require some form of public consultation.⁸⁷

In addition to California, four states—Colorado, Connecticut, Utah, and Virginia—have passed their own privacy laws; all except Utah require some form of risk assessment.⁸⁸ For example, Virginia's privacy law foresees a different role for the public than the CCPA does, but like the CCPA, it is similarly constrained. In 2021, Virginia became the second state to adopt a comprehensive privacy law; it blends certain aspects of the CCPA and GDPR, giving consumers a right to access, correct, and delete their personal information held by businesses. Like the GDPR, Virginia's Consumer Data Protection Act⁸⁹ requires businesses to conduct "data protection assessments" when processing personal data in a way that poses risks to

79. CAL. CIV. CODE §§ 1798.100–1798.199.100 (West 2021).

80. *Id.* § 1798.198(a).

81. *Id.* § 1798.185(a).

82. "The Attorney General's Office held seven public forums around the state and received over 300 written comments during its preliminary rulemaking activities regarding the CCPA." *California Consumer Privacy Act (CCPA) Preliminary Rulemaking Activities*, ST. OF CAL. DEP'T. OF J., <https://oag.ca.gov/privacy/ccpa/prelim> [<https://perma.cc/2Z9C-BB7K>] (last visited Oct. 7, 2022).

83. CAL. CIV. CODE §§ 1798.100–1798.199.100 (West 2022) (effective Jan. 1, 2023).

84. *Frequently Asked Questions (FAQs)*, CPPA, <https://cppa.ca.gov/faq.html> [<https://perma.cc/C2FA-JE7N>] (click on "What is the California Consumer Privacy Act?").

85. CAL. CIV. CODE § 1798.185(a)(15).

86. *Id.*

87. *California Consumer Privacy Act Regulations*, CPPA, https://cppa.ca.gov/regulations/consumer_privacy_act.html [<https://perma.cc/JF3M-7CHG>] (last visited Oct. 7, 2022).

88. See Taylor Kay Lively, *US State Privacy Legislation Tracker*, IAPP, <https://iapp.org/resources/article/us-state-privacy-legislation-tracker/> [<https://perma.cc/J9V6-5CM4>] (Aug. 11, 2022).

89. VA. CODE ANN. §§ 59.1-575 to 59.1-585 (2022) (effective Jan. 1, 2023).

consumers.⁹⁰ However, the act envisions no role for public input; to the contrary, the assessments are considered confidential, privileged, and exempt from freedom of information laws.⁹¹ Only the state attorney general has the right to review them.⁹² Outside input is envisioned only with regard to a statutorily required, temporary work group charged with reviewing the act and considering implementation issues; members of the work group include businesses, government officials, and consumer rights advocates. It does not envision participation by members of the general public.⁹³

Yet another approach for public input was adopted by Washington State when it passed a facial recognition privacy bill in 2020, prohibiting the deployment of FRT without “meaningful human review” of its outputs and requiring employee training on the technology’s limitations.⁹⁴ The act requires public notice before a government agency uses facial recognition technology.⁹⁵ It requires at least three community meetings and a published report outlining the technology’s potential impact on civil liberties before an FRT is approved.⁹⁶ However, as the ACLU has critiqued, the accountability reports do not require any regulatory approval, and agency compliance is unenforceable.⁹⁷

Perhaps the strongest version of public participation to date is contained in City of Seattle Ordinance 125679,⁹⁸ which is part of a wave of at least sixteen local laws enacted since 2015 to govern the adoption of surveillance technologies at the local level.⁹⁹ These laws have been spurred by the confluence of racial justice concerns about over-policing of minority communities and revelations of secret government surveillance programs.¹⁰⁰ Minority communities in particular are heavily surveilled, and as a result, residents’ data become embedded in government databases that feed predictive policing algorithms used by law enforcement to identify “hot spots” for increased patrolling.¹⁰¹ This creates a self-reinforcing feedback

90. *Id.* § 59.1-579.

91. *Id.* § 59.1-575.

92. *Id.*

93. *Id.* §§ 59.1-575 to 59.1-585.

94. S. 6280, 66th Leg., Reg. Sess. (Wash. 2020).

95. *Id.*

96. *Id.*

97. Jennifer Lee, *We Need a Face Surveillance Moratorium, Not Weak Regulations: Concerns About SB 6280*, ACLU WASH. (Mar. 31, 2020), <https://www.aclu-wa.org/story/we-need-face-surveillance-moratorium-not-weak-regulations-concerns-about-sb-6280> [<https://perma.cc/K94S-KCS5>].

98. SEATTLE, WASH., MUN. CODE §§ 14.18.010–14.18.070 (2022).

99. For an overview of local surveillance ordinances, see ARI CHIVUKULA & TYLER TAKEMOTO, BERKELEY SCH. OF L., *LOCAL SURVEILLANCE OVERSIGHT ORDINANCES* (2021), <https://www.law.berkeley.edu/wp-content/uploads/2021/02/Local-Surveillance-Ordinances-White-Paper.pdf> [<https://perma.cc/J8JS-N8AF>].

100. See Meg Young, Michael Katell & P.M. Krafft, *Municipal Surveillance Regulation and Algorithmic Accountability*, *BIG DATA & SOC’Y*, July–Dec. 2019, at 1, 2.

101. See Andrew Guthrie Ferguson, *Policing Predictive Policing*, 94 *WASH. U. L. REV.* 1109, 1124, 1148–49 (2017).

loop that “perpetuate[s] historical biases in enforcement.”¹⁰² In other words, people are arrested because they have a history of arrests. Whereas the federal and state governments have been slow to rein in law enforcement surveillance tools, “the arrival of big data in the urban environment” has led to privacy lawmaking at the local government level, a trend Ira Rubenstein labels “privacy localism.”¹⁰³

Seattle enacted its surveillance ordinance¹⁰⁴ with the express goals of mitigating civil liberties concerns and incorporating racial equity principles in the adoption and use of surveillance technologies.¹⁰⁵ The ordinance contains several provisions for public input.¹⁰⁶ Under the ordinance, each city department must prepare a “surveillance technology determination list” that publicly identifies all surveillance technologies that it is using or considering adopting, as well as a surveillance impact report (SIR) for each technology.¹⁰⁷ The SIR must describe the technology, its planned or foreseeable uses, its potential impacts on civil rights, the benefits to the public from the technology’s adoption, and a description of public engagement efforts—including public presentations, structured discussions, and public feedback received.¹⁰⁸ The ordinance specifically states that “[t]he community meeting or meetings should be accessible, be noticed in multiple languages, be held in communities impacted by the proposed acquisition, and collect information about potential disparate impacts on disadvantaged groups.”¹⁰⁹

Following the drafting of the SIR, a “Community Surveillance Working Group” is tasked with evaluating the SIR, along with any public comments, then preparing a privacy and civil liberties impact assessment.¹¹⁰ Under the ordinance, the working group must have at least five members from “equity-focused organizations” that are focused on groups historically subject to disproportionate surveillance.¹¹¹ The surveillance technology must also be approved by the city council¹¹² and remains subject to an annual equity impact assessment that considers public complaints or concerns.¹¹³

102. William Isaac & Kristian Lum, *Setting the Record Straight on Predictive Policing and Race*, THE APPEAL (Jan. 3, 2018), <https://theappeal.org/setting-the-record-straight-on-predictive-policing-and-race-fe588b457ca2/> [<https://perma.cc/NM7Y-PGNT>].

103. Ira Rubenstein, *Privacy Localism*, 93 WASH. L. REV. 1961, 1965–66 (2018).

104. For a history of police surveillance in Seattle, see Crump, *supra* note 9, at 1605–15.

105. The ordinance defines “surveillance technology” as “any electronic device, software program, or hosted software solution that is designed or primarily intended to be used for the purpose of surveillance,” subject to various exceptions. SEATTLE, WASH., MUN. CODE § 14.18.010 (2022).

106. The Seattle surveillance ordinance appears to be the most robust of all the municipal statutes in terms of public participation, although Oakland, California, has a similar statute. See Young et al., *supra* note 100, at 10.

107. MUN. CODE § 14.18.020.

108. *Id.* § 14.18.040.

109. *Id.* § 14.18.020(C).

110. *Id.* § 14.18.080(B)(1).

111. *Id.* § 14.18.080(A)(3).

112. *Id.* § 14.18.020(A).

113. *Id.* § 14.18.050(A).

Moreover, steps for further review are required if a surveillance technology's functionality materially changes after its initial approval.¹¹⁴ While this ordinance is narrowly tailored to surveillance technologies, it demonstrates an understanding of the benefits and barriers that marginalized populations face in engaging in public comment. Still, implementation of the ordinance has not been without bumps. One barrier to public engagement is the length of time to write the SIR—usually about six to seven months.¹¹⁵ Another is the length of the completed SIRs; for instance, the SIR on the police department's use of automated license plate readers in patrol cars runs 349 pages long and can be too lengthy and complex to engage the general public.¹¹⁶ Thus, implementing public participation in ways that are meaningful and accessible is itself an ongoing process, even if a robust statutory framework is in place.

C. Nonregulatory Approaches to Public Participation

Although this Article focuses on bringing public participation into regulatory regimes, it is essential to acknowledge that citizens can and do provide feedback on algorithmic systems through other routes, often with more force and effect. Both technical design methods and protest movements have brought increased transparency and accountability to certain automated systems.

Participatory design is a technical, engineering method for enhancing accountability in which technology designers collaborate with users in developing automated systems.¹¹⁷ The philosophy is straightforward: "All participatory methods recognize users as authorities over their own social context and hold that active cooperation with designers can make meaningful input or control possible."¹¹⁸ The participatory design process brings user

114. *Id.* § 14.18.020(F).

115. Melissa Hellmann, *Seattle's Oversight of Surveillance Technology Is Moving Forward Slowly*, SEATTLE TIMES (June 4, 2019, 3:39 PM), <https://www.seattletimes.com/business/technology/seattles-oversight-of-surveillance-technology-is-moving-forward-slowly/> [https://perma.cc/G2S6-WTKR]; Jennifer Lee & Shankar Narayan, *Government Surveillance Disproportionately Impacts Vulnerable Community Members*, REAL CHANGE NEWS (Sept. 25, 2019), <https://www.realchangenews.org/news/2019/09/25/government-surveillance-disproportionately-impacts-vulnerable-community-members> [https://perma.cc/K5Y8-SX3U].

116. See Young et al., *supra* note 100, at 6.

117. Michael Katell, Meg Young, Dharma Dailey, Bernease Herman, Vivian Guetler, Aaron Tam, Corinne Bintz, Daniella Raz & P.M. Krafft, *Toward Situated Interventions for Algorithmic Equity: Lessons from the Field*, 2020 PROC. CONF. ON FAIRNESS ACCOUNTABILITY & TRANSPARENCY 45, 46. The field of participatory design includes "user-led innovation, user-centered design (UCD), human-centered design (HCD), inclusive design, and codesign." SASHA COSTANZA-CHOCK, DESIGN JUSTICE: COMMUNITY-LED PRACTICES TO BUILD THE WORLDS WE NEED 85 (2020); see also Madisson Whitman, Chien-yi Hsiang & Kendall Roark, *Potential for Participatory Big Data Ethics and Algorithm Design: A Scoping Mapping Review*, 2 PROC. 15TH PARTICIPATORY DESIGN CONF. 1 (2018).

118. Katell et al., *supra* note 117, at 46; see also Erling Björgvinsson, Pelle Ehn & Per-Anders Hillgren, *Design Things and Design Thinking: Contemporary Participatory Design Challenges*, DESIGN ISSUES, Summer 2012, at 101, 103 ("Participatory Design, seen as

values into system design¹¹⁹ and can “combin[e] business-oriented and socially sensitive perspectives.”¹²⁰ Methods for participatory design vary widely and can include design workshops, evaluation of mock-ups and prototypes,¹²¹ and the “use of metaphors, design fiction, and futuristic scenarios,”¹²² all with the goal of making “critiques and alternative visions for sociotechnical systems more accessible.”¹²³ Participatory design is not required by law; rather, it is voluntary on the part of technology designers and adopters whose incentives include creating superior products that are more likely to gain public acceptance.

Relatedly, the design justice movement is an explicitly political vision of participatory design with commitments to dismantling “the ways that design reproduces and/or challenges the matrix of domination (white supremacy, heteropatriarchy, capitalism, ableism, settler colonialism, and other forms of structural inequality).”¹²⁴ It consists of design practitioners working in collaboration with social movements and community-based organizations, in recognition that “[d]esign mediates so much of our realities and has tremendous impact on our lives, yet very few of us participate in design processes.”¹²⁵ Whereas standard participatory design practitioners may value user input, it “has sometimes (at worst) been reduced to an extractive process to gather new product ideas.”¹²⁶ Accordingly, as Sasha Constanza-Chock explains, “the most valuable ingredient in design justice is the full inclusion of, accountability to, and control by people with direct lived experience of the conditions designers claim they are trying to change.”¹²⁷ Practitioners of design justice are organized around a set of core principles, including recognizing “the role of the designer as a facilitator rather than an expert” and considering all community members as experts “based on their own lived experience.”¹²⁸

With its defiance of conventional design norms, design justice shares commitments with social and labor protest movements for tech accountability. Professor Hannah Bloch-Wehba categorizes these movements as the “democratic vision” for AI, where ordinary people

design of Things, has its roots in the movements toward democratization of work places in the Scandinavian countries.”).

119. Min Kyung Lee, Daniel Kusbit, Anson Kahng, Ji Tae Kim, Xinran Yuan, Allissa Chan, Daniel See, Ritesh Noothigattu, Siheon Lee, Alexandros Psomas & Ariel D. Procaccia, *WeBuildAI: Participatory Framework for Fair and Efficient Algorithmic Governance*, 3 *PROC. ACM ON HUM.-COMPUT. INTERACTION* 1, 1 (2019).

120. Jesper Simonsen & Morten Hertzum, *Sustained Participatory Design: Extending the Iterative Approach*, *DESIGN ISSUES*, Summer 2012, at 10, 10.

121. Toni Robertson & Jesper Simonsen, *Challenges and Opportunities in Contemporary Participatory Design*, *DESIGN ISSUES*, Summer 2012, at 3, 3.

122. Katell et al., *supra* note 117, at 46.

123. *See id.*

124. COSTANZA-CHOCK, *supra* note 117, at 23.

125. *Id.* at 6 (quoting principles of the Design Justice Network).

126. *Id.* at 87.

127. *Id.* at 25.

128. *Design Justice Network Principles*, *DESIGN JUST. NETWORK*, <https://designjustice.org/read-the-principles> [<https://perma.cc/88Z3-WBL9>] (last visited Oct. 7, 2022).

challenge the ways in which governments are partnering with private actors to supply new technologies for use in the criminal, immigration, and national security legal systems.¹²⁹ The actions by the tenants of Atlantic Plaza Towers, discussed earlier, constitute a perfect example of this organizing and activism.¹³⁰ Unlike more technocratic approaches to AI accountability, such as AIAs and audits, the democratic vision is powered by tech workers, immigrant rights activists, police abolitionists, and community-based organizers who are “demand[ing] democratic participation and control of the mechanisms of governance.”¹³¹ For instance, Bloch-Wehba highlights local activists organizing against police use of facial recognition technology in cities across the United States, who were joined by tech workers at Amazon who opposed FRT’s role in surveilling Black Americans.¹³² This ultimately resulted in Amazon putting a yearlong moratorium on FRT sales to police, followed by similar announcements from IBM and Microsoft.¹³³ Further, in response to civic organizing, some cities have moved to ban FRT outright, rather than simply moving to improve its accuracy or narrow its scope.¹³⁴ Nantina Vgontzas and Meredith Whittaker spotlight the broad worker and activist coalitions advancing the progressive tech agenda, urging that “if we don’t vie for control over the algorithms, data, and infrastructure that are shaping our lives, we face a grim future.”¹³⁵

There are countless examples of tech resistance,¹³⁶ including housing activists using open data to track landlords pursuing wrongful evictions,¹³⁷ worker coalitions advocating to enact fair-workweek laws to counter algorithmic scheduling systems that destabilize workers’ lives,¹³⁸ student protests against the surveillance of online proctoring,¹³⁹ and citizens

129. See Hannah Bloch-Wehba, *Algorithmic Governance from the Bottom Up*, BYU L. REV. (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4054640 [<https://perma.cc/PS87-AG9S>].

130. See *supra* notes 1–8 and accompanying text.

131. See Bloch-Wehba, *supra* note 129 (manuscript at 9).

132. See *id.*

133. *Id.*

134. See Jameson Spivack & Clare Garvie, *A Taxonomy of Legislative Approaches to Face Recognition in the United States*, in REGULATING BIOMETRICS: GLOBAL APPROACHES AND URGENT QUESTIONS 86, 90 (Amba Kak ed., 2020).

135. Nantina Vgontzas & Meredith Whittaker, *These Machines Won’t Kill Fascism: Toward a Militant Progressive Vision for Tech*, NATION (Jan. 29, 2021), <https://www.thenation.com/article/society/tech-labor-progressive/> [<https://perma.cc/45TK-HHB7>].

136. Professor Scott Skinner-Thompson has written about the ways in which individuals “perform privacy” as a form of resistance against surveillance, such as by using technology to frustrate facial recognition software by wearing masks or even a hoodie. SCOTT SKINNER-THOMPSON, PRIVACY AT THE MARGINS 45–51 (2021).

137. ANTI-EVICTION MAPPING PROJECT, <https://antievictionmap.com/> [<https://perma.cc/DK8B-VME5>] (last visited Oct. 7, 2022).

138. JULIA WOLFE, JANELLE JONES & DAVID COOPER, ECON. POL’Y INST., “FAIR WORKWEEK” LAWS HELP MORE THAN 1.8 MILLION WORKERS (2018), <https://files.epi.org/pdf/145586.pdf> [<https://perma.cc/X54W-ABEK>].

139. Jeffrey R. Young, *Pushback Is Growing Against Automated Proctoring Services. But So Is Their Use*, EDSURGE (Nov. 13, 2020), <https://www.edsurge.com/news/2020-11-13->

protesting “smart city” technologies.¹⁴⁰ Even when these campaigns do not achieve their goals, they bring much needed awareness of problematic tech practices, which can lay the groundwork for substantive reforms down the road.¹⁴¹ While regulatory, technical, and resistance approaches to algorithmic accountability provide different modes of public input, they can coexist and strengthen each other. The truth is that complementary, iterative, and ongoing modes for civic participation are necessary to effectuate change for historically disempowered people.¹⁴² One advantage of a regulatory approach is that it is mandated, ensuring public input regardless of whether there are grassroots organizing efforts or voluntary corporate initiatives. Given the lack of transparency surrounding many algorithmic systems, a regulatory requirement is important for fostering accountability. The downside to a regulatory approach is that it may not be as flexible and dynamic as these other modes, and, as experience demonstrates, it is less likely to challenge or disrupt existing power structures that can oppress marginalized people. That is the core challenge of the regulatory approach to public participation.

II. THEORIZING PUBLIC PARTICIPATION

Before examining public participation mandates in other legal regimes, it is worth considering why citizen engagement for algorithmic accountability matters in the first place. After all, the United States has a representative democracy in which elected officials enact laws, and accountability presumably flows from the electoral process.¹⁴³ For theorists of minimal democracy, this is more than adequate.¹⁴⁴ And this is a fair description of how data privacy and algorithmic accountability laws are currently shaped, i.e., through political action, or more to the point, inaction. There are very few mechanisms for public input on the technology that governs our lives and very little evidence to suggest that technology concerns are driving electoral contests in today’s highly polarized political environment. Nevertheless, the United States has a rich history of public participation

pushback-is-growing-against-automated-proctoring-services-but-so-is-their-use [https://perma.cc/RFH5-NSRW].

140. Nabeel Ahmed, *The City vs. Big Tech*, BRIARPATCH (July 2, 2019), <https://briarpatchmagazine.com/articles/view/the-city-vs.-big-tech> [https://perma.cc/VN5L-EZZ6].

141. See Selbst, *supra* note 30, at 124.

142. See Jaime Alison Lee, *Turning Participation into Power: A Water Justice Case Study*, 28 GEO. MASON L. REV. 1003, 1043–44 (2021) (“It may well be that contestatory power and participatory power are both necessary to achieve change.”).

143. See Reeve T. Bull, *Making the Administrative State “Safe for Democracy”*: A Theoretical and Practical Analysis of Citizen Participation in Agency Decisionmaking, 65 ADMIN. L. REV. 611, 624 (2013) (chronicling the roots of democracy from ancient Greece to the present); Rebecca L. Brown, *Accountability, Liberty, and the Constitution*, 98 COLUM. L. REV. 531, 558–59 (1998) (“The Constitution’s answer, arrived at with much difficulty and contest, was that the people would stand apart from their representatives and would enforce the terms of their delegation of power to the government. The people’s power would be given away, but reclaimed in an oversight role on election day.”).

144. JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY 269, 284–85 (1943).

beyond the ballot box.¹⁴⁵ Public participation is “anchored by the democratic values of political equality and popular sovereignty which are thrust upon the republican form of government.”¹⁴⁶ Benjamin Barber stressed the goal of “self-government by citizens rather than representative government in the name of citizens.”¹⁴⁷ This part examines the benefits and barriers to meaningful public participation, particularly within the datafied society, and situates these conflicts within the major political theory frameworks for citizen engagement.

A. Benefits

For its proponents, the benefits of public participation are both societal and individual. At a societal level, public participation is said to enhance the quality of decision-making by including the perspectives of people most impacted by any given policy, who can provide needed information and novel problem-solving ideas.¹⁴⁸ In turn, this leads to improved outcomes. It also ensures the inclusion of a range of social and cultural values, which can expand decision-making outside of narrow technical and scientific parameters.¹⁴⁹ In addition, public participation adds democratic legitimacy to governmental decisions because people gain trust from processes they understand and impact.¹⁵⁰ It improves accountability by adding layers of scrutiny and discussion between the public and their elected officials. Professor Archon Fung highlights the social justice value of participatory governance when it shifts “power to those who are socially and politically marginalized,” although this goal can be elusive.¹⁵¹ At an individual level, public participation is touted for enhancing civic skills, which in turn enhance people’s dignity and self-respect.¹⁵²

These arguments are particularly salient with regard to data-centric technologies. To begin, representative democracy is not currently aligned with the people’s will when it comes to data privacy. Ample public surveys show a disconnect between people’s reported concerns about data privacy—

145. See Audrey McFarlane, *When Inclusion Leads to Exclusion: The Uncharted Terrain of Community Participation in Economic Development*, 66 BROOK. L. REV. 861, 908 (2000).

146. RAJENDRA RAMLOGAN, SUSTAINABLE DEVELOPMENT: TOWARDS A JUDICIAL INTERPRETATION 165 (2011); see also Archon Fung, *Varieties of Participation in Complex Governance*, 66 PUB. ADMIN. REV. 66 (2006) (discussing the democratic governance justification for public participation); Barbara L. Bezdek, *Citizen Engagement in the Shrinking City: Toward Development Justice in an Era of Growing Inequality*, 33 ST. LOUIS U. PUB. L. REV. 3, 9 (2014).

147. BENJAMIN R. BARBER, STRONG DEMOCRACY: PARTICIPATORY POLITICS FOR A NEW AGE 151 (2004). In this republished version of his 1984 book, Barber raised technological threats to democracy and the ways in which they tend to “mirror and reinforce rather than transform the societies in which they emerge.” *Id.* at xv.

148. Roberts, *supra* note 11, at 324; Innes & Booher, *supra* note 11, at 426, 428–29.

149. THOMAS C. BEIERLE & JERRY CAYFORD, DEMOCRACY IN PRACTICE: PUBLIC PARTICIPATION IN ENVIRONMENTAL DECISIONS 14 (2002).

150. See Roberts, *supra* note 11, at 323.

151. See Fung, *supra* note 15, at 519–20.

152. See Roberts, *supra* note 11, at 323; Angela M. Gius, *Dignifying Participation*, 42 N.Y.U. REV. L. & SOC. CHANGE 45, 61–62 (2018); McFarlane, *supra* note 145, at 911.

58 percent of survey respondents consider the threat to their online privacy as a crisis¹⁵³—and the lack of regulation. In the United States, there is currently no comprehensive data privacy or algorithmic accountability law in place; rather, our privacy protections are scattered and sectoral, with wide gaps that leave people’s data exposed for commercial and governmental uses and abuses.¹⁵⁴ The pluralist model of democracy contends that interest group bargaining is an adequate proxy for the public will,¹⁵⁵ but this does not appear to hold true for digital privacy—likely due to the dominance of big tech companies in political donations and lobbying power.¹⁵⁶ At the same time, legislators have proved woefully uninformed about technology and are easily swayed by the innovation rhetoric of “Big Tech.”¹⁵⁷ Thus, when it comes to the age of algorithms, the ballot box alone is not adequate to ensure that democratic values inform technology development.

Further, citizens are participating unwittingly in big-data networks without knowing the extent to which their data is used or for what purposes, while businesses reap massive profits from their data, and governments use data for social control. As one international privacy advocacy group reports:

Most consumers still think about online privacy as being primarily concerned with the data they share, and not the data that is observed from their behaviour, inferred or predicted. It is our experience that the general understanding of how profiling works and the kinds of information it can reveal is exceptionally low.¹⁵⁸

153. Kim Hart, *A Growing Majority Now Views Our Online Privacy as a Crisis*, AXIOS (Mar. 9, 2019), <https://www.axios.com/a-growing-majority-now-views-our-online-privacy-as-a-crisis-1552080369-94146f05-332d-465d-a136-4414f9cdf9ce.html> [https://perma.cc/NPQ9-B9Q3]. In a November 2019 report, the Pew Research Center found that over 60 percent of American adults polled do not think that they can go through daily life without having their data collected. BROOKE AUXIER, LEE RAINIE, MONICA ANDERSON, ANDREW PERRIN, MADHU KUMAR & ERICA TURNER, PEW RSCH. CTR., *AMERICANS AND PRIVACY: CONCERNED, CONFUSED AND FEELING LACK OF CONTROL OVER THEIR PERSONAL INFORMATION* 30 (2019), <https://www.pewresearch.org/internet/2019/11/15/americans-and-privacy-concerned-confused-and-feeling-lack-of-control-over-their-personal-information/> [https://perma.cc/N728-XLWP] (click on “Complete Report PDF”). Eighty-one percent of respondents believe that the risks of private data collection outweigh the benefits, and 66 percent believe that the risks of government data collection outweigh the benefits. *Id.* Relatedly, large majorities are concerned about how their data is used by companies (79 percent) and the government (64 percent). *Id.* Seventy-nine percent have no faith that companies will admit mistakes or take responsibility for data misuse and breaches. *Id.* Reflecting these concerns, 75 percent opine that there should be more privacy regulation. *Id.*

154. See Gilman, *supra* note 20, at 402.

155. See generally ROBERT A. DAHL, *WHO GOVERNS?: DEMOCRACY AND POWER IN AN AMERICAN CITY* (2d ed. 1961).

156. See Cecilia Kang & Kenneth P. Vogel, *Tech Giants Amass a Lobbying Army for an Epic Washington Battle*, N.Y. TIMES (June 5, 2019), <https://www.nytimes.com/2019/06/05/us/politics/amazon-apple-facebook-google-lobbying.html> [https://perma.cc/U99W-G36E].

157. Overall, “members of Congress lack technical expertise and face a paucity of trusted, non-ideological, and credible external technical experts.” Deirdre K. Mulligan & Kenneth A. Bamberger, *Saving Governance-By-Design*, 106 CALIF. L. REV. 697, 702 (2018).

158. PRIV. INT’L, *DATA IS POWER: PROFILING AND AUTOMATED DECISION-MAKING IN GDPR* 12 (2017), [https://privacyinternational.org/sites/default/files/2018-04/Data%20Is%](https://privacyinternational.org/sites/default/files/2018-04/Data%20Is%20Power.pdf)

Citizens are subjects of technology, yet they have little self-determination or voice in the vast algorithmic networks that shape their lives. Professor Ngozi Okidegbe calls this a form of “democratic exclusion”¹⁵⁹ that reinforces existing patterns of political exclusion.¹⁶⁰ A democratic corrective to this dynamic is arguably all the more urgent, given how the online environment is corrupting democracy through disinformation campaigns that target people based on their digital profiles in order to sway elections and sow discontent and division.¹⁶¹

Moreover, privacy is a collective value necessary for the realization of democracy, and thus public participation in framing and enforcing privacy rights can enhance the overall democratic project.¹⁶² As Professor Carissa Véliz explains, a single person’s data disclosure, whether voluntary or unknowing, puts the rest of society at risk because our data is interlinked.¹⁶³ Professor Darakhshan Mir elaborates that individuals’ personal data “are interlinked with each other in underlying social contexts animated by the social, communal, professional, civic, and commercial links they have with other individuals, entities, and institutions.”¹⁶⁴ This collective nature of privacy has consequences for democracy. Privacy allows “us to vote according to our beliefs and without undue pressure, for us to protest anonymously without fear of repercussions, to have freedom to associate, speak our minds, read what we are curious about.”¹⁶⁵ And yet, a culture of data extraction negates privacy and shifts power from the people to private companies and the state.¹⁶⁶ Professor Julie Cohen explains that “citizens who are subject to pervasively distributed surveillance and modulation by powerful commercial and political interests . . . increasingly will lack the ability to form and pursue meaningful agendas for human flourishing.”¹⁶⁷

20Power-Profiling%20and%20Automated%20Decision-Making%20in%20GDPR.pdf
[https://perma.cc/2PR5-5FK2].

159. Okidegbe, *supra* note 16, at 757 (discussing pretrial algorithms used to determine bail in the criminal law system).

160. *Id.* at 761.

161. See CARISSA VÉLIZ, *PRIVACY IS POWER* 80–81 (2021); Joan Donovan, *Deconstructing Disinformation’s Threat to Democracy*, FLETCHER F. WORLD AFFS., Winter 2020, at 153, 153.

162. Darakhshan J. Mir, *Designing for the Privacy Commons*, in GOVERNING PRIVACY IN KNOWLEDGE COMMONS 245 (Madelyn Rose Sanfilippo, Brett M. Frischmann & Katherine J. Strandburg eds., 2021); Paul M. Schwartz, *Privacy and Democracy in Cyberspace*, 52 VAND. L. REV. 1609, 1613–14 (1999) (“[I]nformation privacy is best conceived of as a constitutive element of civil society. The Internet’s potential to improve shared life in the United States will be squandered unless we structure the kinds of information use necessary for democratic community and individual self-governance.”); Julie E. Cohen, *What Privacy Is For*, 126 HARV. L. REV. 1904, 1905 (2013) (“Privacy therefore is an indispensable structural feature of liberal democratic political systems.”); VIRGINIA EUBANKS, *AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR* 12 (2018) (“The widespread use of these [algorithmic] systems impacts the quality of democracy for us all.”).

163. VÉLIZ, *supra* note 161, at 80–81.

164. See Mir, *supra* note 162, at 248.

165. VÉLIZ, *supra* note 161, at 87; see also SKINNER-THOMPSON, *supra* note 136, at 50–54 (explaining how privacy enables First Amendment rights to speech and association, both of which are essential to a functioning democracy).

166. VÉLIZ, *supra* note 161, at 87.

167. Cohen, *supra* note 162, at 1912.

The collective and democratic values of privacy lend “credence to the idea of using democratic processes to determine which norms or rules regarding privacy should be in use, how they should be governed, how the appropriateness of specific privacy rules should be evaluated, and by whom.”¹⁶⁸

Public input for algorithmic systems can also serve as a corrective to a political system that devalues poor people. Extensive political science research shows that legislators are most responsive to wealthy voters and entities, and are largely nonresponsive to those lower on the income scale.¹⁶⁹ The harms of algorithmic systems are most acute for marginalized people, which may partly explain the lack of political will to constrain the massive scale of data extraction. Professor Shoshana Zuboff has sounded the alarm on “surveillance capitalism,” explaining the way in which “Big Tech” profits from gathering people’s personal data in order to predict, and even shape, consumer behavior, thereby threatening individual autonomy and democratic norms.¹⁷⁰ For low-income people and people of color, the resulting digital profiles, compiled from individual’s personal data and that of their online and offline friends and networks, limit their life opportunities.¹⁷¹ Their digital profiles mark them as targets for predatory goods and services, such as subprime loans and for-profit college scams.¹⁷² At the same time, digital profiling serves as a gatekeeper that excludes them from mainstream opportunities. Predictive algorithms are embedded in thousands of consumer reports that score people in all aspects of their lives.¹⁷³ For instance, algorithmic determinations of creditworthiness determine access to and the cost of loans, cars, jobs, insurance, and higher education.¹⁷⁴ These “[s]cores can become self-fulfilling prophecies, creating the financial distress they claim merely to indicate.”¹⁷⁵ And, these scores encode decades of systemic racism in housing, employment, and mass incarceration.¹⁷⁶ Not surprisingly,

168. Mir, *supra* note 162, at 255.

169. LARRY M. BARTELS, *UNEQUAL DEMOCRACY: THE POLITICAL ECONOMY OF THE NEW GILDED AGE* 254–65 (2d ed. 2008) (finding that U.S. senators were responsive to the ideological views of middle- and high-income constituents, while the views of “low income constituents had no discernible impact” on their voting behavior); Martin Gilens, *Inequality and Democratic Responsiveness*, 69 *PUB. OP. Q.* 778, 786, 788, 792 (2005) (showing a statistical correlation between the views of higher income Americans and policy outcomes).

170. SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER* (2019).

171. Gilman, *supra* note 20, at 371.

172. See generally O’NEIL, *supra* note 21.

173. Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 *WASH. L. REV.* 1, 2–3 (2014); CONSUMER FIN. PROT. BUREAU, *supra* note 22.

174. Mary Madden, Michele Gilman, Karen Levy & Alice Marwick, *Privacy, Poverty, and Big Data: A Matrix of Vulnerabilities for Poor Americans*, 95 *WASH. U. L. REV.* 53, 55–56 (2017).

175. Citron & Pasquale, *supra* note 173, at 18.

176. Lea Krivinskas Shepard, *Toward a Stronger Financial History Antidiscrimination Norm*, 53 *B.C. L. REV.* 1695, 1704 (2012); see also CONSUMER FIN. PROT. BUREAU, *JUSTICE-INVOLVED INDIVIDUALS AND THE CONSUMER FINANCIAL MARKETPLACE* (2022),

low-income people report higher levels of concern about their data privacy but lower levels of confidence in how to manage it.¹⁷⁷

On the government side of algorithmic deployment, Professor Virginia Eubanks has described the rise of the “digital poorhouse,” in which algorithms determine people’s access to social welfare programs in ways that emphasize “punishment and containment,” thereby intensifying structural inequalities.¹⁷⁸ Algorithms sort homeless people into tiers of worthiness determining who gets limited access to housing assistance; they disproportionately scoop poor parents and parents of color into the child welfare system, where these parents risk losing their children; and they churn out eligibility decisions for access to Medicaid and other life-sustaining safety net programs without adequate human review or avenues for recourse.¹⁷⁹ These dynamics led the United Nations special rapporteur on extreme poverty to warn of a “digital welfare dystopia,” in which “[s]ystems of social protection and assistance are increasingly driven by digital data and technologies that are used . . . to automate, predict, identify, surveil, detect, target and punish.”¹⁸⁰ Professor Dorothy E. Roberts stresses the racialized underpinnings of these systems, explaining that “predictive models that rely on data structured by existing racial inequality predetermine a future that corresponds to the past racial order.”¹⁸¹

Marginalized people also face intense surveillance in their neighborhoods, schools, and workplaces, and the resulting data streams contribute to mass incarceration, the school-to-prison pipeline, oppressive workplace conditions, and subprime financial markets.¹⁸² There is a long history of surveillance of marginalized populations,¹⁸³ but technology adds scope, speed, and scale to these historic dynamics of social control and carceral categorization. Moreover, the lines between the private and public spheres of algorithmic judgments are collapsing as private companies and government agencies engage in extensive data sharing, and governments

https://files.consumerfinance.gov/f/documents/cfpb_jic_report_2022-01.pdf
[<https://perma.cc/N3WR-N6EY>].

177. MARY MADDEN, DATA & SOC’Y, PRIVACY, SECURITY, AND DIGITAL INEQUALITY (2017), https://datasociety.net/wp-content/uploads/2017/09/DataAndSociety_PrivacySecurityandDigitalInequality.pdf [<https://perma.cc/D34C-DKZS>].

178. EUBANKS, *supra* note 162, at 82.

179. *Id.*

180. Press Release, Off. of the High Comm’r, United Nations, World Stumbling Zombie-Like into a Digital Welfare Dystopia, Warns UN Human Rights Expert (Oct. 17, 2019), <https://www.ohchr.org/en/press-releases/2019/10/world-stumbling-zombie-digital-welfare-dystopia-warns-un-human-rights-expert> [<https://perma.cc/28MT-JP6B>].

181. Roberts, *supra* note 9, at 1712.

182. Gilman, *supra* note 20, at 394–99.

183. On the history and practices of surveillance of marginalized people, see, for example, SKINNER-THOMPSON, *supra* note 136, at 8–44 (surveillance of the economically disadvantaged, racial and religious minorities, queer communities, and women); SIMONE BROWNE, DARK MATTERS: ON THE SURVEILLANCE OF BLACKNESS (2015) (surveillance of Black Americans); JOHN GILLIOM, OVERSEERS OF THE POOR: SURVEILLANCE, RESISTANCE, AND THE LIMITS OF PRIVACY 20–21 (2001) (surveillance of welfare recipients); EUBANKS, *supra* note 162 (surveillance of the poor).

purchase algorithmic systems from private vendors.¹⁸⁴ This further hinders accountability: private vendors become political actors lacking checks and balances,¹⁸⁵ and government agencies hide behind private contracts.¹⁸⁶

Just as the needs and interests of marginalized people are not represented in the political process, they are likewise not represented in the technology design process. Across technical jobs and leadership positions, the tech industry is overwhelmingly male, and white or Asian: no more than 5 percent of the workforce in many Silicon Valley firms is Black, Hispanic, or Indigenous.¹⁸⁷ Women only represent approximately one-quarter of technical jobs, and their numbers drop even lower in leadership positions.¹⁸⁸ These disparities partly result from many barriers, including employers that consistently prefer to recruit and hire workers who replicate the existing workforce.¹⁸⁹ There is also an “endpoint” problem,¹⁹⁰ in which women, Black, and Latinx workers who obtain tech jobs leave them at far higher rates

184. Roberts, *supra* note 9, at 1710; RUHA BENJAMIN, RACE AFTER TECHNOLOGY: ABOLITIONIST TOOLS FOR THE NEW JIM CODE 13–14, 53 (2019). For example, “[i]f someone is marked ‘risky’ in one arena, that stigma follows him around much more efficiently, streamlining marginalization.” *Id.* at 14.

185. BENJAMIN, *supra* note 184, at 53.

186. Hannah Bloch-Wehba, *Transparency’s AI Problem*, KNIGHT FIRST AMEND. INST. AT COLUM. UNIV. (June 17, 2021), <https://knightcolumbia.org/content/transparencys-ai-problem> [<https://perma.cc/6DBS-T7KJ>]; see also Okidegbe, *supra* note 16, at 3 (explaining how local jurisdictions are outsourcing the creation of pretrial risk assessment algorithms to the private sector).

187. This figure is an estimate based on data self-reported by several of the largest Silicon Valley firms. See Sara Harrison, *Five Years of Tech Diversity Reports—and Little Progress*, WIRED (Oct. 1, 2019), <https://www.wired.com/story/five-years-tech-diversity-reports-little-progress/> [<https://perma.cc/F3XR-TCUQ>]; Ayanna Howard & Charles Isbell, *Diversity in AI: The Invisible Men and Women*, MIT SLOAN MGMT. REV. (Sept. 21, 2020), <https://sloanreview.mit.edu/article/diversity-in-ai-the-invisible-men-and-women/> [<https://perma.cc/78XC-5R2Z>]; see also Kristin N. Johnson, *Automating the Risk of Bias*, 87 GEO. WASH. L. REV. 1214, 1223–25 (2019); *id.* at 1226–27 (explaining the need for diversity in leadership positions for companies that develop and adopt automated decision-making platforms). At the lower rungs of the industry, low-income people toil for low wages as “ghost workers,” see MARY L. GRAY & SIDDHARTH SURI, GHOST WORK: HOW TO STOP SILICON VALLEY FROM BUILDING A NEW GLOBAL UNDERCLASS (2019), and content moderators, see SARAH T. ROBERTS, BEHIND THE SCREEN: CONTENT MODERATION IN THE SHADOWS OF SOCIAL MEDIA (2019).

188. COSTANZA-CHOCK, *supra* note 117, at 73–74.

189. ALLISON SCOTT, FREADA KAPOR KLEIN, FRIEDA MCALEAR, ALEXIS MARTIN & SONIA KOSHY, KAPOR CTR. FOR SOC. IMPACT, THE LEAKY TECH PIPELINE: A COMPREHENSIVE FRAMEWORK FOR UNDERSTANDING AND ADDRESSING THE LACK OF DIVERSITY ACROSS THE TECH ECOSYSTEM 17 (2018), https://www.kaporcenter.org/wp-content/uploads/2018/02/KC18001_report_v6-1.pdf [<https://perma.cc/5RMV-CV49>]; see also Maya Beasley, *There Is a Supply of Diverse Workers in Tech, So Why Is Silicon Valley So Lacking in Diversity?*, CTR. FOR AM. PROGRESS (Mar. 29, 2017), <https://www.americanprogress.org/issues/race/reports/2017/03/29/429424/supply-diverse-workers-tech-silicon-valley-lacking-diversity/> [<https://perma.cc/W53G-FB8F>] (arguing that current efforts to improve diversity are failing).

190. Kimberly A. Houser, *Can AI Solve the Diversity Problem in the Tech Industry?: Mitigating Noise and Bias in Employment Decision-Making*, 22 STAN. TECH. L. REV. 290, 297–303 (2019) (stating that women leave the tech industry at a rate 45 percent higher than men); Kyla Windley & Edith Pan, STAN. PIT LAB, *Diversity in Tech: The Endpoint Problem*, MEDIUM (Oct. 28, 2020), <https://medium.com/swlh/diversity-in-tech-the-endpoint-problem-77f3265b6aab> [<https://perma.cc/B6AN-NRN8>].

than white men due to harassment, a lack of mentorship, exclusion, and disrespect.¹⁹¹ The narrow worldview shared among programmers has consequences. For instance, when designers imagine their default users, they “most frequently assume that the unmarked user has access to several very powerful privileges, such as US citizenship, English language proficiency, access to broadband internet, a smartphone, a normatively abled body, and so on.”¹⁹² For all these reasons, public participation could enhance democratic values in algorithmic accountability.

B. Barriers

From the perspective of the corporate or governmental entities whose products or processes are at issue, public participation can appear too time intensive and too costly, with too little upside.¹⁹³ From the perspective of impacted communities, there are multiple barriers to meaningful participation. To begin, the people whose voices are most needed tend to face the largest hurdles to participation. Marginalized people often lack the time for participation as they struggle to survive economically, and they can face logistical hurdles such as lack of transportation, childcare, or language access. Further, public participation can be challenging when scientific and technical issues are being debated that call for certain levels of expertise. Even when they engage in participatory processes, people from marginalized communities can often find that they are tokenized: their participation is used as window dressing to push through public policies that do not serve their interest.¹⁹⁴ They may find that their “perspectives . . . may be disregarded due to factors such as race, culture, income, and language; a lack of traditional markers of expertise such as educational or professional credentials; and a lack of other resources that provide influence and bargaining advantages.”¹⁹⁵ In turn, this can generate community distrust of

191. COSTANZA-CHOCK, *supra* note 117, at 71 (“Tech companies reproduce intersectional oppression through their hiring, retention, and promotion practices; through internal corporate culture that tolerates misogyny, racism, and sexual harassment; and through the products they design.”).

192. *Id.* at 77; *see also* Okidegbe, *supra* note 16, at 18 (pretrial risk assessment algorithms are “constructed with the normative assumptions of their developers” in ways that do not align with the needs or desires of impacted communities).

193. *See* Roberts, *supra* note 11, at 324, 339.

194. *See* Johannes Himmelreich, *Against “Democratizing AI,”* AI & SOC’Y (forthcoming), <https://johanneshimmelreich.net/papers/against-democratizing-AI.pdf> [https://perma.cc/RL45-BQVJ] (arguing against broader public participation in AI regimes). Professor Himmelreich notes: “Participation might be merely a chimera that masks a consolidation and centralization of power—capital power or bureaucratic power. After all, it is a puzzle—if there is so much value in participation—why there is so little of it.” *Id.* (manuscript at 19). Himmelreich argues that democracy has done a bad job of assisting the poor, and thus he queries why increased democracy would be beneficial in the context of AI that impacts marginalized people. *Id.* (manuscript at 15).

195. Lee, *supra* note 16, at 414; *see also* Roberts, *supra* note 11, at 326, 337–38 (discussing the dilemma of excluded or oppressed groups); Gius, *supra* note 152, at 83–84; Svitlana Kravchenko, *The Myth of Public Participation in a World of Poverty*, 23 TULANE ENV’T L.J. 33, 45 (2009); McFarlane, *supra* note 145, at 914–15.

the entities and government agencies overseeing a participatory process, while diverting resources from other social justice reform efforts and making it difficult to contest outcomes that “carry the presumption of community endorsement.”¹⁹⁶ Having a voice is meaningless without real power,¹⁹⁷ while “a cosmetic process invariably favors those already in power.”¹⁹⁸

These and other challenges to public participation are heightened in the tech space. A lack of transparency around algorithmic systems hinders the public from knowing and understanding how those decision-making systems impact their lives.¹⁹⁹ For instance, a prospective tenant may struggle to obtain a rental, unaware that they are being repeatedly denied based on the outcome of a tenant-screening algorithm.²⁰⁰ Or, a Black patient may get a lower level of health care than a similarly ill white patient, unaware of this difference or that it may have been caused by an algorithm.²⁰¹ Or, a female engineer may never learn why a corporate giant rejected her resume, unaware that the company’s hiring algorithm learned to prefer men’s resumes.²⁰² Further, without their knowledge, millions of users provide free labor to technical systems—for instance, their clicks and uploads are used to refine language and image processing algorithms.²⁰³ This participation is invisible and uncompensated.

Transparency is further stymied because developers of algorithmic systems want to protect their intellectual property and thus, vigorously claim trade secrecy protection when challenged.²⁰⁴ In the face of open records

196. Wendy A. Bach, *Governance, Accountability, and the New Poverty Agenda*, 2010 WIS. L. REV. 239, 267. There are risks that superficial participation can be used “as a paper trail to push back against claims of unfair harm from those adversely affected by the algorithm.” Ari Ezra Waldman, *Power, Process, and Automated Decision-Making*, 88 FORDHAM L. REV. 613, 629 (2019).

197. Jaime Alison Lee, *Poverty, Dignity, and Public Housing*, 47 COLUM. HUM. RTS. L. REV. 97, 135 (2015).

198. See Lee, *supra* note 16.

199. See Bloch-Wehba, *supra* note 186, at 11–13.

200. See Lauren Kirchner, *The Obscure Yet Powerful Tenant-Screening Industry Is Finally Getting Some Scrutiny*, THE MARKUP (Jan. 11, 2021, 8:00 AM), <https://themarkup.org/locked-out/2021/01/11/the-obscure-yet-powerful-tenant-screening-industry-is-finally-getting-some-scrutiny> [<https://perma.cc/E5D7-DMTR>].

201. See Ziad Obermeyer, Brian Powers, Christine Vogeli & Sendhil Mullainathan, *Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations*, 366 SCI. 447, 450 (2019).

202. See Jeffrey Dastin, *Amazon Scraps Secret AI Recruiting Tool That Showed Bias Against Women*, REUTERS (Oct. 10, 2018, 7:04 PM), <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G> [<https://perma.cc/5VBE-SX5V>].

203. See MONA SLOANE, EMANUEL MOSS, OLAITAN AWOMOLO & LAURA FORLANO, PARTICIPATION IS NOT A DESIGN FIX FOR MACHINE LEARNING 2 (2020), <https://www.datascienceassn.org/sites/default/files/Participation%20is%20not%20a%20Design%20Fix%20for%20Machine%20Learning.pdf> [<https://perma.cc/GV29-JQT7>] (“Billions of ordinary web users also continually participate in the production and refinement of [machine learning], as their online (and offline) activities produce neatly labeled rows of data on how they click their way around the web, navigate their streets, and engage in any number of other commercial, leisure, or romantic activities.”).

204. See Bloch-Wehba, *supra* note 186, at 8.

requests, even public agencies will assert a trade secrecy defense for algorithmic systems that they purchase under the terms of procurement contracts.²⁰⁵ As a result, the internal workings of an algorithm are a “black box,” hidden from public scrutiny.²⁰⁶ Even if the box is opened, some algorithms conduct machine learning operations that are so complex that their makers cannot explain how the algorithms arrive at their outcomes.²⁰⁷ Nevertheless, the evidence suggests that regular people have ample expertise about the impacts of technology on their lives, and thus, this expertise needs to be validated.²⁰⁸

Another barrier is the phenomenon of “techno-chauvinism,” as Professor Meredith Broussard terms it, or a human belief in the infallibility of computer outcomes based on their seeming objectivity.²⁰⁹ Professor Ruha Benjamin explains the way in which uncritical faith in technology has generated “the New Jim Code,” or “the employment of new technologies that reflect and reproduce existing inequities but that are promoted and perceived as more objective or progressive than the discriminatory systems of a previous era.”²¹⁰ A rich literature explains the follies of these assumptions, given that human beings design algorithmic systems, and their judgments get embedded at multiple stages of the design process.²¹¹ Nevertheless, many people fall prey to “automation bias,” or the tendency to believe in a computerized outcome over one’s human judgment.²¹² And, most people lack the training, knowledge, or confidence to retain a healthy skepticism toward algorithmic systems.

If these barriers are not recognized and addressed, the risks of public participation amounting to mere window dressing increase. A group of machine learning scholars observe that the discourse of participation can be rhetorically appealing, but often “fails to account for existing power dynamics and obscures the extractive nature of collaboration, openness, and

205. See Robert Brauneis & Ellen P. Goodman, *Algorithmic Transparency for the Smart City*, 20 YALE J.L. & TECH. 103, 152–57 (2018).

206. FRANK PASQUALE, *THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION* (2015).

207. See Roberts, *supra* note 9, at 171.

208. See generally TAWANA PETTY, MARIELLA SABA, TAMIKA LEWIS, SEETA PEÑA GANGADHARAN & VIRGINIA EUBANKS, *OUR DATA BODIES, RECLAIMING OUR DATA* (2018), https://www.odbproject.org/wp-content/uploads/2016/12/ODB.InterimReport.FINAL_7.16.2018.pdf [<https://perma.cc/9EXS-HSC4>] (describing a research justice project in which marginalized people described the ways in which they experience data collection and data-driven systems).

209. MEREDITH BROUSSARD, *ARTIFICIAL UNINTELLIGENCE: HOW COMPUTERS MISUNDERSTAND THE WORLD* (2018).

210. BENJAMIN, *supra* note 184, at 5–6.

211. See Brauneis & Goodman, *supra* note 205, at 119 (“Algorithmic governance has a politics. Judgments are encoded in the algorithmic process at all stages.”); Waldman, *supra* note 196, at 616 (“[A]lgorithmic decision-making hides the fact that engineers and their corporate employers are choosing winners and losers while steadfastly remaining agnostic about the social, political, and economic consequences of their work.”).

212. Brauneis & Goodman, *supra* note 205, at 126 (“Government officials may defer to algorithmic output even when it is erroneous, discriminatory, or framed in terms of categories that are too coarse or outcomes that are too narrow.”).

sharing.”²¹³ As a result, it is essential to acknowledge “that partnerships and justice do not scale in frictionless ways, but require constant maintenance and articulation with existing social formation in new contexts.”²¹⁴ The required level of intentionality to avoid “participation washing” is, of course, the focus of this Article.

C. Participatory Democracy and Democratic Deliberation

While public participation could enhance algorithmic accountability, particularly for marginalized groups, there is no fixed template for what meaningful participation looks like in this realm. Moreover, not all participation is the same. In the 1960s, Sherry Arnstein developed an influential “ladder of citizen participation”²¹⁵ that includes eight levels of participation, “with each rung corresponding to the extent of citizens’ power in determining the end product.”²¹⁶ At the bottom levels are nonparticipatory mechanisms in which power holders talk at participants through manipulation and therapy.²¹⁷ The ladder then progresses to token levels of participation consisting of informing, consultation, and placation—at these rungs, citizens may be heard, but they lack the power to shape outcomes.²¹⁸ Many public participation tools exist at these middle levels; the most notable is the notice-and-comment requirement for government agencies issuing regulations with the force of law. The public has the right to comment on the proposals, and the agency must consider those comments, but ultimately, the agency makes the final decision.²¹⁹ By contrast, at the top three rungs of the ladder, citizens gain power “with increasing degrees of decision-making clout” from partnership to delegation to citizen control.²²⁰ At the top level of citizen control, “have-not citizens” hold a majority of the decision-making seats or even full managerial control.²²¹ This is not to say that the higher rungs are necessarily superior; as Professor Barbara L. Bezdek points out, “[i]ncreased control may not always be desired by the community, and

213. SLOANE ET AL., *supra* note 203, at 2.

214. *Id.* at 4.

215. Sherry R. Arnstein, *A Ladder of Citizen Participation*, 35 J. AM. PLAN. ASS’N 216 (1969). There are many ways to conceptualize modes of public participation; Rikki John Dean helpfully conceptualizes them in terms of competing theories of democracy and public administration. Rikki John Dean, *Beyond Radicalism and Resignation: The Competing Logics for Public Participation in Policy Decisions*, 45 POL’Y & POL. 213 (2017).

216. From the bottom to the top, the rungs are manipulation, therapy, informing, consultation, placation, partnership, delegated power, and citizen control. *See* Arnstein, *supra* note 215, at 217.

217. *Id.*

218. *Id.*

219. On the duties of agencies to take comments seriously, see generally Donald J. Kochan, *The Commenting Power: Agency Accountability Through Public Participation*, 70 OKLA. L. REV. 601 (2018).

220. *See* Arnstein, *supra* note 215, at 217.

221. *See id.*

increased control without necessary supports . . . may produce what the community would regard as failure.”²²²

The upper tiers of Arnstein’s ladder are supported by at least two underlying theoretical frameworks: participatory democracy and deliberative democracy. For Professor Carole Pateman, a leading theorist of participatory democracy, the goal is to shift democratic power away from political elites and toward the people.²²³ Writing in 1970, she argued that democracy emerges from public participation in all areas of life—from the home, to schools, to the workplace, to politics.²²⁴ In her theory, “‘participation’ refers to (equal) participation in the making of decisions, and ‘political equality’ refers to equality of power in determining the outcome of decisions”²²⁵ True participation requires including people who lack power and privilege²²⁶ and reflects a belief that all people have the potential for political learning.²²⁷ She stresses the ways in which participation in various spheres of life begets political participation as people develop democratic skills and procedures.²²⁸

Both Pateman and Arnstein wrote in the early 1970s, a time of political foment and large-scale social disruptions. In subsequent decades, participatory theory took a less political turn that focused on process rather than substantive shifts in power relations. Under the theory of deliberative democracy, democratic legitimacy is secured by deliberation among citizens who engage in an exchange of reasons in an inclusive setting.²²⁹ This is not a mere duel of ideas in a debate; rather, it involves a dialogue of exchanging viewpoints and the deliberative process of providing reasons.²³⁰ It creates a “real link between the public will and the public policies and office-holders who are selected.”²³¹ Through the process of deliberation, citizens are more

222. Bezdek, *supra* note 146, at 43; *see also* Fung, *supra* note 146, at 67; PETER J. BALINT, RONALD E. STEWART, ANAND DESAI & LAWRENCE C. WALTERS, *WICKED ENVIRONMENTAL PROBLEMS* 111 (2011).

223. *See generally* CAROLE PATEMAN, *PARTICIPATION AND DEMOCRATIC THEORY* (1970).

224. *Id.* at 108–09. Professor Pateman writes, “the scope of the term ‘political’ is extended to cover spheres outside national government.” *Id.* at 106. And indeed, her empirical study focused on the workplace.

225. *Id.* at 43.

226. *Id.* at 21.

227. *Id.* at 47.

228. *Id.* at 105.

229. Jon Elster, *Introduction* to *DELIBERATIVE DEMOCRACY* 1, 8 (Jon Elster ed. 1998); *see also* JANE MANSBRIDGE, JAMES BOHMAN, SIMONE CHAMBERS, THOMAS CHRISTIANO, ARCHON FUNG, JOHN PARKINSON, DENNIS F. THOMPSON & MARK E. WARREN, *A SYSTEMIC APPROACH TO DELIBERATIVE DEMOCRACY*, in *DELIBERATIVE SYSTEMS: DELIBERATIVE DEMOCRACY AT THE LARGE SCALE* 1, 11 (John Parkinson & Jane Mansbridge eds., 2012) (“A healthy deliberative system is one in which relevant considerations are brought forth from all corners, aired, discussed, and appropriately weighed.”).

230. *See* Bezdek, *supra* note 146, at 33.

231. James S. Fishkin & Jane Mansbridge, *Introduction*, 146 *DÆDALUS*, Summer 2017, 6, 7. “[T]he core justification of deliberative democracy as a political ideal [is] that the legitimacy of our collective political arrangements (institutions, laws, policies) rests on mutual justification enacted through deliberative practices amongst free and equal citizens.” David Owen & Graham Smith, *Deliberation, Democracy, and the Systemic Turn*, 23 *J. POL. PHIL.* 213, 218 (2015).

likely to accept political decisions, even if they are on the losing end.²³² Deliberative democracy assumes that citizen preferences are not fixed, but develop through the deliberative process,²³³ which is “expected to lead to empathy with the other and a broadened sense of people’s own interests.”²³⁴ These theorists promote a variety of practical mechanisms designed to improve, and not replace, representative democracy;²³⁵ indeed, it is a “normative project grounded in political theory.”²³⁶ These mechanisms include mini-publics, which are fora where small groups of citizens drawn from a representative range of backgrounds are first educated about issues essential to their communities and subsequently debate them.²³⁷

Participatory democracy focuses on the importance of citizen governance in the transformation of power imbalances at all levels of society, while deliberative democracy centers on securing democratic legitimacy through discussion and debate.²³⁸ Tech resistance movements are forms of participatory democracy, while AIA proposals and participatory design practices share the process-based focus of deliberative democracy. Professor Ari Waldman has critiqued these latter, technocratic approaches to algorithmic accountability as reinforcing the failures of neoliberalism.²³⁹ In other words, the neoliberal norms that govern technology development “prioritize[] freedom and efficiency above all other values,” and thus, compliance mechanisms that focus on process will reinforce, rather than disrupt, these norms.²⁴⁰ The question is whether public participation mechanisms that are mandated through regulation can ever provide a serious corrective to these neoliberal dynamics. Given the complicated calculus of the benefits and barriers of public participation, lessons from other regulatory regimes can provide some guidance in designing public participation mandates for algorithmic accountability and data privacy regulation.

III. PUBLIC PARTICIPATION IN LAW

Public participation is a norm in several American legal regimes that have operated for decades, and these areas provide numerous lessons for enhancing democracy in the datafied society. Accordingly, this part

232. See David Alan Sklansky, *Police and Democracy*, 103 MICH. L. REV. 1699, 1764 (2005).

233. See Peter Biegelbauer & James Hansen, *Democratic Theory and Citizen Participation: Democracy Models in the Evaluation of Public Participation in Science and Technology*, 38 SCI. & PUB. POL’Y 589, 591 (2011).

234. Tali Mendelberg, *The Deliberative Citizen: Theory and Evidence*, 6 POL. DECISION MAKING DELIBERATION & PARTICIPATION 151, 153 (2002).

235. See Simone Chambers, *Deliberation & Mass Democracy*, in DELIBERATIVE SYSTEMS: DELIBERATIVE DEMOCRACY AT THE LARGE SCALE, *supra* note 229, at 52, 53.

236. Nicole Curato, John S. Dryzek, Selen A. Ercan, Carolyn M. Hendriks & Simon Niemeyer, *Twelve Key Findings in Deliberative Democracy Research*, 146 DÆDALUS, Summer 2017, 28, 28.

237. See Fishkin & Mansbridge, *supra* note 231, at 8.

238. See R.W. Hildreth, *Word and Deed: A Deweyan Integration of Deliberative and Participatory Democracy*, 34 NEW POL. SCI. 295, 295–97 (2012).

239. Waldman, *supra* note 196.

240. *Id.* at 615.

examines public participation mandates in environmental law, with special attention to the environmental justice movement, anti-poverty programs, and land use decision-making. Overall, these regimes demonstrate the importance of building intentional structures that involve marginalized communities, a commitment to valuing the expertise of the impacted public, and a willingness to share power and adapt in response to feedback.

A. *Environmental Protection*

The National Environmental Policy Act of 1969²⁴¹ (NEPA) declares “a national policy which will encourage productive and enjoyable harmony between man and his environment.”²⁴² Considered the Magna Carta of environmental law,²⁴³ NEPA grants citizens procedural rights for obtaining government information and providing public input in environmental decision-making, which in turn provides agencies with greater information about the consequences of their actions.²⁴⁴ Under NEPA, federal agencies must prepare an environmental impact statement (EIS) before taking any major action that might have “significant” effects on the environment.²⁴⁵ So, for instance, before a highway may be built, toxic waste cleaned up, genetically modified crops approved, or a permit for logging issued, the relevant agency must conduct an environmental assessment. An EIS is a “detailed statement” that discusses the environmental status of the impacted area, describes the positive and negative projected environmental, economic, and social impacts of the proposed action, and considers alternatives.²⁴⁶

241. 42 U.S.C. §§ 4321–4347.

242. *Id.* § 4321.

243. LINDA LUTHER, *THE NATIONAL ENVIRONMENTAL POLICY ACT: BACKGROUND AND IMPLEMENTATION 2* (2008), <https://fas.org/sgp/crs/misc/RL33152.pdf> [<https://perma.cc/4Z72-YDS5>]; John C. Ruple & Mark Capone, *NEPA—Substantive Effectiveness Under a Procedural Mandate: Assessment of Oil and Gas EISs in the Mountain West*, 7 *GEO. WASH. J. ENERGY & ENV'T L.* 39, 40 (2016).

244. *See* Ted Boling, *Making the Connection: NEPA Processes for National Environmental Policy*, 32 *WASH. U. J.L. & POL'Y* 313, 317–18 (2010).

245. 42 U.S.C. § 4332(2)(C). The act also created the Council on Environmental Quality (CEQ), housed in the Executive Office of the President, which, with executive authority from the president, issued regulations to implement NEPA. LUTHER, *supra* note 243, at 1, 10–11. The CEQ does not have enforcement authority. *See id.* at 2 n.1. In addition, each federal agency has its own regulations implementing NEPA. *See, e.g.*, 40 C.F.R. § 1507.3(a) (2022). Other substantive environmental acts—such as the Clean Air Act, Clean Water Act, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Endangered Species Act of 1973—also contain opportunities for public participation.

246. 42 U.S.C. § 4332(2)(C). If the anticipated impact does not rise to the threshold level of “significant,” the agency instead prepares an environmental assessment (EA), identifying the environmental consequences and creating a record about the expected impacts of the proposed action, including the persons and agencies who were consulted in preparing the record. *Id.* At that point, the agency can issue a “finding of no significant impact” (FONSI) and move forward with the project. *Id.* In the EA process, most agencies make drafts available to the public and receive input before issuing the FONSI. *See* Nicholas A. Fromherz, *From Consultation to Consent: Community Approval as a Prerequisite to Environmentally Significant Projects*, 116 *W. VA. L. REV.* 109, 120–21 (2013) (describing the EA process).

From the wealth of decades of NEPA experience and the volume of studies on its impacts, certain lessons can be drawn that could be useful in the realm of digital privacy, particularly given the parallels between environmental and data protection. Both the environment and privacy are valuable resources that are difficult, if not impossible, to regain once lost. As Cathy O’Neil states: “If you think of [data mining] as a factory, unfairness is the black stuff belching out of the smoke stacks. It’s an emission, a toxic one.”²⁴⁷ Data’s ubiquity has made it like the environment, such that it is “now everything and almost no area of human endeavor lies apart from its reach.”²⁴⁸ Both the environment and personal data are resources that help individuals in pursuing an autonomous version of a good life, and help society at large, given the collective interest in a healthy environment and privacy. Both are under immense pressure from business interests that seek to monetize their value. Both involve complex scientific and technical issues that are nevertheless intertwined with social and cultural values.²⁴⁹ For all these reasons, it is not surprising that NEPA has been influential for privacy scholars and activists thinking about algorithmic accountability.²⁵⁰

NEPA allows for public input at several stages in the EIS process. Once the agency determines that an EIS is necessary, the agency issues a notice of intent setting forth the scope of issues raised by the proposed project.²⁵¹ At this stage, the agency must actively seek input from the public and other agencies, and provide an opportunity “to suggest issues and alternatives the agency should consider, and to identify impacts that are of concern to the community.”²⁵² The agency then prepares a draft EIS, which must be available for public comment for at least forty-five days, and a hearing is required if the proposed action is substantially controversial.²⁵³ In addition, the agency is charged with “affirmatively soliciting comments from those persons or organizations who may be interested or affected,”²⁵⁴ and publicity about the project and opportunities for comment can be disseminated in

247. See O’NEIL, *supra* note 21, at 95.

248. Marc B. Mihaly, *Citizen Participation in the Making of Environmental Decisions: Evolving Obstacles and Potential Solutions Through Partnership with Experts and Agents*, 27 PACE ENV’T L. REV. 151, 169 (2009).

249. See *id.* at 169–70 (explaining the complexity of environmental issues); BALINT ET AL., *supra* note 222, at 2 (describing wicked environmental problems as those “characterized by a high degree of scientific uncertainty and deep disagreement on values”). The overlap is more than an analogy: environmental decision-making increasingly relies on algorithmic tools that “impede equity and democratic participation, without deliberate countermeasures.” Sonya Ziaja, *How Algorithm-Assisted Decision Making Is Influencing Environmental Law and Climate Adaptation*, 48 ECOLOGY L.Q. 899, 902 (2021).

250. See Selbst, *supra* note 42, at 169–72; MOSS ET AL., *supra* note 36, at 19; Kaminski & Malgieri, *supra* note 9, at 135; Froomkin, *supra* note 40, at 1749–50.

251. See LUTHER, *supra* note 243, at 18.

252. See COMMUNITY GUIDE TO ENVIRONMENTAL JUSTICE AND NEPA METHODS 15 (2019), <https://www.energy.gov/sites/prod/files/2019/05/f63/NEPA%20Community%20Guide%20019.pdf> [https://perma.cc/697L-7T2P].

253. See LUTHER, *supra* note 243, at 18–19.

254. 40 C.F.R. § 1503.1 (2022).

multiple ways, including through the media.²⁵⁵ After the comment period, the agency prepares the final EIS. While the agency is not bound to follow the majority will of the public, it must respond to the comments received.²⁵⁶ Throughout the process, agencies must provide public notice of any hearings, public meetings, and the availability of documents about the proposed action.²⁵⁷

NEPA is an extremely influential statute that spurred the enactment of “little NEPAs” at the state level and inspired similar environmental laws across the globe and in other fields.²⁵⁸ NEPA, however, is divisive, and debates over the EIS process mirror those about public participation generally. NEPA supporters contend that it provides a venue for agencies to hear about and consider public views on environmental implications before they take action. Opposition comes from two directions.²⁵⁹ The industry-friendly critique charges that the EIS process is overly burdensome in terms of time and money, and that the public lacks the necessary expertise to add substance to the discussion.²⁶⁰ More progressive critics query whether public input is meaningful, especially given that citizens are invited to comment only after the major decision to undertake an EIS is made,²⁶¹ and

255. See Erica Morrell, *Public Comment Periods and Federal Environmental Impact Statements: Potentials and Pitfalls from the American Experience*, 1 MICH. J. SUSTAINABILITY 93, 99 (2013). Professor Morrell notes, “[t]he methods used to alert the public of a comment period can constrain and enable participation, shaping who knows about and has access to the comment period—at times further limiting the participation of already marginalized sectors of the population such as the disabled, minorities, and low-income groups.” *Id.*

256. George K. Foster, *Community Participation in Development*, 51 VAND. J. TRANSACTIONAL L. 39, 60 (2018) (“Even if a majority of an affected community opposes a proposal, the responsible agency can still approve it; affected communities do not have a veto.”).

257. See LUTHER, *supra* note 243, at 26.

258. Bradley C. Karkkainen, *Toward a Smarter NEPA: Monitoring and Managing Government’s Environmental Performance*, 102 COLUM. L. REV. 903, 905–06 (2002). The Aarhus Convention, ratified by countries in Europe and Central Asia, requires publication participation in environmental matters, and more than 100 countries have EIA-style requirements. See Foster, *supra* note 256, at 64–65.

259. See Froomkin, *supra* note 40, at 1782 (summarizing critiques including derision of the EIS process as “comprised of make-work, boilerplate, and Cover Your Ass”).

260. See, e.g., Lisa Friedman, *Trump Weakens Major Conservation Law to Speed Construction Permits*, N.Y. TIMES, <https://www.nytimes.com/2020/07/15/climate/trump-environment-nepa.html> [<https://perma.cc/7UUK-J5HY>] (Oct. 6, 2021). But see BEIERLE & CAYFORD, *supra* note 149, at 27 (the authors counter that “the case studies suggest that the public is perfectly capable of improving decision quality”).

261. See Karkkainen, *supra* note 258, at 924 (stating that EISs are prepared “at the end of a protracted, multistage project development and clearance process . . . this is long after the ‘real’ commencement of agency resources to the project has been made”). Another critique is that the comment process does not result in meaningful dialogue among and between commenters and agency officials; by the time the proposed rule is released, the agency is unlikely to make significant changes. See Albert Lin, *Power to the People: Restoring the Public Voice in Environmental Law*, 46 AKRON L. REV. 1017, 1021 (2013). And, there are concerns that public participation mandates, along with other NEPA-style requirements, will slow down urgently needed responses to climate change. J.B. Ruhl & James Salzman, *What Happens When the Green New Deal Meets the Old Green Laws?*, 44 VT. L. REV. 693, 697–98, 719 (2020).

given that public input does not continue throughout the life cycle of a project. Further, marginalized communities can struggle to participate due to logistical, technical, and cultural barriers.²⁶² These power imbalances can favor economic interests over values of fairness and equity.²⁶³

These competing viewpoints have been extensively tested and studied.²⁶⁴ A meta-analysis of over 239 case studies by Thomas C. Beierle and Jerry Cayford assessed whether NEPA met five benchmarks for public participation: (1) incorporating public values into decisions, (2) improving the substantive quality of decisions, (3) resolving conflicts among competing interests, (4) building trust in institutions, and (5) educating and informing the public.²⁶⁵ They concluded that “[c]onsiderably more public participation cases in our database produced good outcomes than produced bad outcomes.”²⁶⁶ The processes “were most successful in educating and informing the public and least successful in building trust in institutions.”²⁶⁷ The highest rates of success were associated with more intensive processes.²⁶⁸ Yet these intensive processes have a downside: they are less likely to engage the broader public and to have representatives from a wide range of socioeconomic backgrounds.²⁶⁹ Thus, the authors recommend harnessing the “problem-solving capabilities of intensive participatory mechanisms with the broad involvement of the public more often found in the less-intensive mechanisms.”²⁷⁰ More specifically, they advise making representatives responsible to their broader constituencies, combining

262. See Fromherz, *supra* note 246, at 134 (“Giving a voice to the public is not the same as listening to the public.”).

263. See Eileen Gauna, *The Environmental Justice Misfit: Public Participation and the Paradigm Paradox*, 17 STAN. ENV'T L.J. 3, 49–50 (1998).

264. The Council on Environmental Quality, the federal office that oversees NEPA implementation, conducted a major study of NEPA's effectiveness at its twenty-five-year anniversary. COUNCIL ON ENV'T QUALITY, THE NATIONAL ENVIRONMENTAL POLICY ACT: A STUDY OF ITS EFFECTIVENESS AFTER TWENTY-FIVE YEARS (1997), <http://pasecorps.org/wp-content/uploads/2016/09/NEPA-Study-of-its-Effectiveness-after-25-years.pdf> [https://perma.cc/24TF-KRTG]. The study concluded that NEPA's success “heavily depends on whether an agency has systematically reached out to those who will be most affected by a proposal, gathered information and ideas from them, and responded to the input by modifying or adding alternatives, throughout the entire course of a planning process.” *Id.* at 17; see also Marion Hourdequin, Peter Landres, Mark J. Hanson & David R. Craig, *Ethical Implications of Democratic Theory for U.S. Public Participation in Environmental Impact Assessment*, 35 ENV'T IMPACT ASSESSMENT REV. 37, 37 (2012) (“Unequal political influence among different participants, a perceived lack of public access to the collaborative process itself, or skepticism about the actual influence of stakeholder participation on agency decisions often leads to mistrust and dissatisfaction with agency outcomes.”).

265. See BEIERLE & CAYFORD, *supra* note 149, at 16. In assessing these objectives, the authors examined four types of participatory mechanisms: public meetings and hearings, advisory committees not seeking consensus, advisory committees seeking consensus, and negotiations and mediations. *Id.* at 47.

266. *Id.* at 33.

267. *Id.*

268. *Id.* at 47.

269. *Id.* at 48.

270. *Id.* at 49.

various participatory mechanisms, and using technology to engage in large-group deliberative processes.²⁷¹

The Bierle & Cayford study highlights the challenge of ensuring meaningful participation for marginalized communities. The environmental justice movement has sought to overcome this barrier and thus is an essential—but heretofore overlooked—resource for structuring the AIA process.²⁷² In the late 1980s, the environmental justice movement took root, and it argued that privileged white people systematically receive the benefits of environmental protection, while poor people of color systematically incur the environmental risk.²⁷³ People with low incomes and/or racial and ethnic minorities disproportionately live near hazardous waste facilities and other industrial hazards, and their neighborhoods, air, and water are more polluted than those in wealthier and white communities.²⁷⁴ And yet, white, middle-class people have long dominated the environmental movement with an emphasis on resource degradation rather than social justice.²⁷⁵ The environmental justice movement has its origins in a 1982 protest in Warren County, North Carolina, over the dumping of toxic soil containing carcinogenic compounds called polychlorinated biphenyls (PCBs) in a landfill located in a majority Black community.²⁷⁶ Over 500 protesters were arrested over six weeks of marches and protests.²⁷⁷ The movement against environmental racism soon expanded through networks across the country, using civil rights—organizing tactics and pressuring mainstream

271. *Id.* Professors Dorothy M. Daley and Tony G. Reames note that valuable perspectives can be lost when government agencies recruit participants from organized groups because it “tends to result in a similar set of engaged stakeholders taking part in the decision-making process.” Dorothy M. Daley & Tony G. Reames, *Public Participation and Environmental Justice: Access to Federal Decision Making*, in *FAILED PROMISES: EVALUATING THE FEDERAL GOVERNMENT’S RESPONSE TO ENVIRONMENTAL JUSTICE* 143, 147 (David Konisky ed., 2015).

272. *See generally* LUKE W. COLE & SHEILA R. FOSTER, *FROM THE GROUND UP: ENVIRONMENTAL RACISM AND THE RISE OF THE ENVIRONMENTAL JUSTICE MOVEMENT* (2001).

273. *See* Sheila Foster, *Environmental Justice in an Era of Devolved Collaboration*, 26 HARV. ENV’T L. REV. 459, 461 (2002); *see also* Gauna, *supra* note 263, at 8. “Although the causes of environmental inequities remain hotly disputed, there remains strong evidence of race- and income-based disparities in environmental burdens, ranging from the location of commercial hazardous waste treatment, storage, and disposal facilities to poor air quality.” David Konisky, *Federal Environmental Justice Policy: Lessons Learned*, in *FAILED PROMISES: EVALUATING THE FEDERAL GOVERNMENT’S RESPONSE TO ENVIRONMENTAL JUSTICE*, *supra* note 271, at 233, 234.

274. COLE & FOSTER, *supra* note 272, at 55.

Waste facility siting battles are but one aspect of the movement for environmental justice, which also concerns itself with the cleanup of contaminated industrial sites, the elimination of occupational hazards, lead abatement, enforcement of existing environmental regulations, and the guarantee of representation in the environmental decision-making process. The movement for environmental justice is also about creating clean jobs, building a sustainable economy, guaranteeing safe and affordable housing, and achieving racial and social justice.

Id. at 17.

275. *See* Daley & Reames, *supra* note 271, at 148.

276. *See* Daniel Faber & Deborah McCarthy, *The Evolving Structure of the Environmental Justice Movement in the United States: New Models for Democratic Decision-Making*, 14 SOC. JUST. RSCH. 405, 414 (2002).

277. *Id.*

environmental organizations and government agencies to pay heed to the issue.²⁷⁸ A foundational principle of environmental justice is that the people impacted should be afforded “the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement, and evaluation.”²⁷⁹ Overall, this movement shifted the approach to public participation from a solely functionalist one (valuing input to improve the quality of decisions) toward a more deliberative one (emphasizing emancipatory concepts of sharing power with less privileged groups in society).²⁸⁰

In 1994, President Bill Clinton issued Executive Order 12898²⁸¹ requiring federal agencies, as part of the EIS process, to “identify[] and address[], as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”²⁸² The executive order makes “[e]nvironmental equity . . . a core consideration in federal environmental decision making,”²⁸³ and while its impact has waxed and waned with the political winds,²⁸⁴ it remains in effect to this day, and there is a governmental infrastructure built around environmental justice.²⁸⁵ The U.S. Environmental Protection Agency (EPA) has issued guidance to its staff for considering environmental justice in regulatory actions.²⁸⁶ In addition, the National Environmental Justice Advisory Council (NEJAC), comprised of expert stakeholders from outside the EPA, makes recommendations to the

278. *See id.* at 415–19.

279. THE PRINCIPLES OF ENVIRONMENTAL JUSTICE (1991), <https://www.ejnet.org/ej/principles.pdf> [<https://perma.cc/637J-VJE8>].

280. Ortwin Renn & Pia-Johanna Schweizer, *Inclusive Risk Governance: Concepts and Application to Environmental Policy Making*, 19 ENV’T POL’Y. GOV. 174, 181 (2009). The authors describe six theoretical approaches to public participation: functionalist, neoliberal, deliberative, anthropological, emancipatory, and postmodern. *Id.* at 176. “The diversity of concepts and background philosophies is one of the reasons why participatory processes are so difficult to evaluate in terms of overarching evaluative criteria.” *Id.* at 181.

281. Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 11, 1994).

282. *Id.* at 7629.

283. David Konisky, *Introduction to FAILED PROMISES: EVALUATING THE FEDERAL GOVERNMENT’S RESPONSE TO ENVIRONMENTAL JUSTICE*, *supra* note 271, at 1, 4.

284. David Konisky, *The Federal Government’s Response to Environmental Inequality*, in *FAILED PROMISES: EVALUATING THE FEDERAL GOVERNMENT’S RESPONSE TO ENVIRONMENTAL JUSTICE*, *supra* note 271, at 29, 48; *see also* Caroline Farrell, *A Just Transition: Lessons Learned from the Environmental Justice Movement*, 4 DUKE F.L. & SOC. CHANGE 45, 51 (2012) (“The order is significantly limited by the fact that it is not enforceable. There are no consequences if an agency fails to follow the order.”).

285. The Office of Environmental Justice within the EPA is charged with coordinating environmental justice efforts across the agency, and the EPA’s programmatic offices and regional offices also have staff assigned to environmental justice responsibilities. Konisky, *supra* note 284, at 38. In an executive order addressing climate change, President Joe Biden charged the federal agencies with “achieving environmental justice part of their missions.” Exec. Order No. 14008, 86 Fed. Reg. 7619, 7629 (Feb. 1, 2021).

286. ENV’T PROT. AGENCY, *GUIDANCE ON CONSIDERING ENVIRONMENTAL JUSTICE DURING THE DEVELOPMENT OF REGULATORY ACTIONS* (2015), <https://www.epa.gov/sites/production/files/2015-06/documents/considering-ej-in-rulemaking-guide-final.pdf> [<https://perma.cc/YF3Y-9PLU>].

agency,²⁸⁷ including through detailed reports on broadening public participation in environmental decision-making.²⁸⁸ These blueprints are equally useful in the context of algorithmic decision-making systems.

These guidance documents highlight the logistical barriers to participation facing low-income people and racial and ethnic minorities. These barriers are not insurmountable. For instance, meetings can be set at hours that working people can attend and in locations that are easily accessible. Transportation, food, and childcare may need to be provided, as well as financial assistance to facilitate participation. In addition, language access may be required to ensure that non-English speakers can participate. The issue and opportunities for participation should be publicized through multiple mediums and organizations,²⁸⁹ accompanied by affirmative outreach to community groups that can identify and bring stakeholders to the table. Impacted people should have input into the design of participatory processes,²⁹⁰ as they can work with decision-makers to identify and overcome hurdles.²⁹¹ The EPA recommends that decision-makers carefully consider and select from a range of participatory mechanisms, pointing in particular to the “spectrum of public involvement” set forth by the International Association for Public Participation.²⁹² For instance, among the ten tools for generating in-person public input, the EPA suggests using focus groups, study circles, charrettes,²⁹³ and computer-assisted processes.²⁹⁴ Among consensus-building techniques, the EPA suggests soliciting input from advisory boards, workshops, and citizen juries.

287. Konisky, *supra* note 284, at 30.

288. NAT’L ENV’T JUST. ADVISORY COUNCIL, MODEL GUIDELINES FOR PUBLIC PARTICIPATION: AN UPDATE TO THE 1996 NEJAC MODEL PLAN FOR PUBLIC PARTICIPATION (2013), <https://www.epa.gov/sites/default/files/2015-02/documents/recommendations-model-guide-pp-2013.pdf> [<https://perma.cc/QNR3-3FYL>].

289. “Remote towns and villages disseminate information using local radio stations, CB radio, local newspapers, placing posters at grocery stores, trading posts, or at village/community center/chapter meetings In many instances, reaching parents of school-age children may be facilitated through schools.” ENV’T PROT. AGENCY, *supra* note 286, at 34.

290. Early and regular consultation with stakeholders is essential and includes giving “minority populations, low-income populations, tribes, and indigenous peoples” a role in designing the participatory process. *Id.* at 32; *see also* NAT’L ENV’T JUST. ADVISORY COUNCIL, *supra* note 288, at 3.

291. *See* Jennifer Dodge, *Environmental Justice and Deliberative Democracy: How Social Change Organizations Respond to Power in the Deliberative System*, 3 POL’Y & SOC’Y 225, 227–28 (2017) (“[T]echnical-rational discourses dominate policy analysis and can constrain public discourse by narrowing the range of possible problem definitions and solutions, often undermining direct experience[s] . . . for example, of racial injustices.”).

292. ENV’T PROT. AGENCY, *supra* note 286, at 33 n.33 (referring to www.IAP2.org).

293. “A charrette is an intensive, multi-disciplinary workshop with the aim of developing a design or vision for a project or planning activity.” *Public Participation Guide: Charrettes*, ENV’T PROT. AGENCY, <https://www.epa.gov/international-cooperation/public-participation-guide-charrettes> [<https://perma.cc/K5HX-5QNZ>] (last visited Oct. 7, 2022).

294. *Public Participation Guide: Tools to Generate and Obtain Public Input*, ENV’T PROT. AGENCY, <https://www.epa.gov/international-cooperation/public-participation-guide-tools-generate-and-obtain-public-input> [<https://perma.cc/GB4H-SX6K>] (last visited Oct. 7, 2022).

Once logistical barriers are overcome and participatory methods are selected, the process must allow for meaningful input by the public. This means that the public must have opportunities for participation early in the project, rather than be invited to comment on a finalized plan.²⁹⁵ In addition, capacity building is key.²⁹⁶ As a result, materials need to be “concise, understandable and readily accessible,”²⁹⁷ and participants may need education and support on technical issues.²⁹⁸ In this vein, Professor Jonathan Skinner-Thompson recommends providing grant funds to impacted communities so that they can hire their own technical advisors—a current feature of the federal Superfund law that could be expanded.²⁹⁹ He points to studies showing that the involvement of these technical advisors not only increases public confidence in projects, but also leads to better decisions.³⁰⁰ Similarly, one study of an advisory group working on the issue of DNA research found that “when a participatory body is given sufficient time, information, and opportunity to make decisions that will have a real impact on issues that truly matter to the participants, it can achieve a high level of sophistication and understanding.”³⁰¹

These efforts at capacity building should be tailored to the specific communities impacted: “Common elements of engagement should not overshadow the uniqueness of every community.”³⁰² Cross-cultural awareness is thus essential,³⁰³ particularly multicultural sensitivity to the perspectives and needs of all persons, especially the least powerful. To build trust, government officials have to recognize and respect that “[m]inority populations, low-income populations, tribes, and indigenous peoples have unique knowledge of their goals, needs and vulnerabilities.”³⁰⁴ They are “an ‘encyclopedia of experientially-tested and validated insight,’” and consultation with them is the “foundation of community engagement efforts.”³⁰⁵ Thus, participatory processes should accept multiple forms of

295. See Farrell, *supra* note 284, at 60.

296. See *id.* at 59 (describing an effective grassroots case study for public participation in which the initiative began with “a series of trainings in order to build the community residents’ capacity to engage in discussions about transitioning to a green economy”).

297. ENV’T PROT. AGENCY, *supra* note 286, at 33.

298. “Examples of such assistance could include facilitation of discussions among stakeholders, funding resources, workshops and trainings in the relevant subject.” NAT’L ENV’T JUST. ADVISORY COUNCIL, *supra* note 288, at 6.

299. Jonathan Skinner-Thompson, *Procedural Environmental Justice*, 97 WASH. L. REV. 399, 432, 439–40 (2022).

300. *Id.* at 445–46.

301. Jonathan Poisner, *A Civic Republican Perspective on the National Environmental Policy Act’s Process for Citizen Participation*, 26 ENV’T L. 53, 93 (1996) (quoting Bruce Jennings, *Representation and Participation in the Democratic Governance of Science and Technology*, in GOVERNING SCIENCE AND TECHNOLOGY IN A DEMOCRACY 223, 240 (Malcom L. Goggin ed., 1986)).

302. NAT’L ENV’T JUST. ADVISORY COUNCIL, *supra* note 288, at 2.

303. See *id.* at 5.

304. ENV’T PROT. AGENCY, *supra* note 286, at 32.

305. NAT’L ENV’T JUST. ADVISORY COUNCIL, *supra* note 288, at 2.

input.³⁰⁶ At the same time, the entities that design and oversee public participation mechanisms need to maintain a culture that values participation as a goal in itself. “[D]ecisionmakers must recognize the legitimacy of public values and understand that those values may lead to priorities and conclusions that agencies (which have their own understanding of what the public interest is) find wrong.”³⁰⁷ And, they must communicate honestly about the “goals, expectations, and limitations” of the participatory process.³⁰⁸

In light of these expanding norms around public participation, some federal agencies have sometimes gone above and beyond NEPA’s minimum requirements, seeking innovative ways to make public input more satisfying to participants and more useful to decision-makers.³⁰⁹ Ideas from deliberative democracy theory have been rolled out in the environmental context. For instance, the EPA has taken various initiatives to incorporate consensus building into participatory mechanisms and has increasingly reached out to invite early participation, rather than waiting for the public to come to the agency.³¹⁰ Agencies have used strategies to make information more accessible and user-friendly to the public and to engage the public in compliance monitoring.³¹¹ Agencies have also put an emphasis on multiparty collaborative processes and engaged with conflict resolution experts.³¹² Deliberative workshops that merge social impacts with ecological and biophysical concepts have been held.³¹³

To be sure, public participation models that promote environmental justice are easier to state than achieve. A leading study by Professors Dorothy M. Daley and Tony G. Reames³¹⁴ found that the EPA “has had some success in expanding the conversation, improving access to information, and forging new partnerships with communities,” but that “more work remains, as the scope of environmental justice problems is large,”³¹⁵ “participation from minority and low-income communities remains uneven,” and there are

306. Dodge, *supra* note 291, at 228 (“When an actor imposes a frame, he/she exercises coercive, ‘power over’ by placing constraints on the form and/or content of communication, thus prioritizing some actions, arguments, or actors over others.”).

307. BEIERLE & CAYFORD, *supra* note 149, at 64.

308. NAT’L ENV’T JUST. ADVISORY COUNCIL, *supra* note 288, at 4.

309. See COUNCIL ON ENV’T QUALITY, COLLABORATION IN NEPA: A HANDBOOK FOR NEPA PRACTITIONERS 3 (2007), https://ceq.doe.gov/docs/get-involved/Collaboration_in_NEPA_Oct2007.pdf [<https://perma.cc/CPD9-TE6T>] (“Public involvement practices and techniques have evolved considerably since Congress passed NEPA in 1970.”); see also Foster, *supra* note 273, at 459–61.

310. See Nancy Perkins Spyke, *Public Participation in Environmental Decisionmaking at the New Millennium: Structuring New Spheres of Public Influence*, 26 B.C. ENV’T AFFS. L. REV. 263, 287 (1999).

311. See *id.* at 299–300.

312. See generally COUNCIL ON ENV’T QUALITY, *supra* note 309, at 45–60.

313. See Amanda L. Bentley Brymer, Joseph D. Holbrook, Ryan J. Niemeyer, Alexis A. Suazo, J.D. Wulfhorst, Kerri T. Vierling, Beth A. Newingham, Timothy E. Link & Janet L. Rachlow, *A Social-Ecological Impact Assessment for Public Lands Management: Application of a Conceptual and Methodological Framework*, 21 ECOLOGY & SOC’Y, no. 3, 2016, at 9.

314. Daley & Reames, *supra* note 271.

315. *Id.* at 158.

“challenges of creating systemic change in large bureaucracies.”³¹⁶ Their research confirms findings from prior studies that “effective participation is characterized by clear goals, adequate human and financial capital investment, consistent institutional commitment, and an ability for participation to affect change in all stages of decision making.”³¹⁷ These studies suggest that as AIAs are implemented, government agencies and private companies will need to be attentive to the way in which they design participatory processes, such as by providing for the involvement of stakeholders in foundational decisions.

Of course, these analyses of participatory processes do not answer the question of whether the EIS process has an articulable impact on outcomes, which is more difficult to measure. Still, empirical studies have concluded that the process “does appear to produce final decisions that are substantially less impactful on the environment when compared to initially proposed projects.”³¹⁸ Internally, the EIS process might push agencies to engage in more sustainable decision-making, while externally, the increased transparency and public input may push agencies toward better results.³¹⁹ It also appears that the process pushes agencies to abandon certain projects, knowing that they cannot survive the EIS gauntlet.³²⁰ Ideally, an AIA requirement will similarly shape algorithmic outcomes to better serve the public.

B. *The War on Poverty*

Public participation was a centerpiece of the community action programs (CAPs) established by the Economic Opportunity Act of 1964³²¹ (EOA) as part of President Lyndon B. Johnson’s War on Poverty.³²² The federally

316. *Id.* at 165.

317. *Id.*

318. Ruple & Capone, *supra* note 243, at 50; *see also* ROBERT G. DREHER, NEPA UNDER SIEGE: THE POLITICAL ASSAULT ON THE NATIONAL ENVIRONMENTAL POLICY ACT 4 (2005) (“Examples are legion in which proposed federal actions that would have had serious environmental consequences were dramatically improved, or even in some instances abandoned, as a result of the NEPA process.”); Daniel R. Mandelker, *The National Environmental Policy Act: A Review of Its Experience and Problems*, 32 WASH. U. J.L. & POL’Y 293, 294 (2012) (“[A] legion of studies . . . [mostly] conclude that NEPA has had a moderately positive effect.”).

319. Ruple & Capone, *supra* note 243, at 47.

320. “NEPA’s most significant effect has been to deter federal agencies from bringing forward proposed projects that could not withstand public examination and debate.” Dreher, *supra* note 318, at 6. Since the enactment of NEPA, agencies “have been more likely to modify projects in light of expressed concerns and to consider alternatives proposed by interested citizens.” Fromherz, *supra* note 246, at 133.

321. Pub. L. No. 88-452, 78 Stat. 508 (repealed 1981). The act also created a federal job corps and work-training programs and expanded preschool, community health, and legal services programs. *See* Tomiko Brown-Nagin, *The Civil Rights Canon: Above and Below*, 123 YALE L.J. 2698, 2730 (2014).

322. *See* Tara J. Melish, *Maximum Feasible Participation of the Poor: New Governance, New Accountability, and a 21st Century War on the Sources of Poverty*, 13 YALE HUM. RTS. & DEV. L.J. 1, 3 (2010). The act represented the “economic citizenship agenda” of the civil rights movement. Brown-Nagin, *supra* note 321, at 2734.

funded and locally administered CAPs were part of an economic justice strategy designed “to provide stimulation and incentive for urban and rural communities to mobilize their resources to combat poverty.”³²³ CAPs were tasked with “assessing local needs in employment, child and adult education, health, social welfare, or legal services, and with devising strategies and administering programs to address those community needs.”³²⁴ Importantly, the EOA required that CAPs operate “with the maximum feasible participation of residents of the areas and members of the groups served.”³²⁵ As President Johnson stated, “local citizens best understand their own problems, and know best how to deal with those problems.”³²⁶ Indeed, at the time of the EOA’s passage, the concept of participatory democracy was “in the air,” circulated in New Left movements, philanthropic organizations, and academia.³²⁷ By February 1968, the United States had 1,600 community action agencies (CAAs) carrying out CAPs across the country.³²⁸

However, as low-income, Black Americans began mobilizing in CAAs, they began challenging existing local political structures, which almost immediately³²⁹ created a “political firestorm.”³³⁰ Because CAP funding flowed from the federal government directly to the CAPs, bypassing state and local gatekeepers,³³¹ mayors were fearful of losing opportunities for political patronage and facing challenges from new political coalitions.³³² White backlash blamed CAAs for fomenting the urban uprisings of the

323. Economic Opportunity Act of 1964 § 2. “CAAs were to be federally created entities, entitled to federal funding for ninety percent of their program costs for the first two years of operation, after which the percentage of federal funds would decrease.” Melish, *supra* note 322, at 24.

324. Brown-Nagin, *supra* note 321, at 2731–32.

325. Economic Opportunity Act of 1964 § 2. The participatory mandate provided a way to bypass profound resistance among southern politicians to any programs that might threaten the perpetuation of segregation and racial capitalism. Melish, *supra* note 322, at 22.

326. Special Message to Congress Proposing a Nationwide War on the Sources of Poverty, 1 PUB. PAPERS 375 (Mar. 16, 1964).

327. Melish, *supra* note 322, at 18. “The concept was simple: those most affected by social disadvantage—the indigenously disadvantaged—were necessarily better positioned to understand poverty’s causes, to identify the most effective solutions to them, and to advocate their own communities’ interests than were ‘outside’ middleclass professional reformers lacking any direct experience with those conditions.” *Id.*

328. *Id.* at 26; Brown-Nagin, *supra* note 321, at 2734 (they “enabled local people to build clinics, preschools, and community centers and to provide food relief—in short, to begin the work of revitalizing their communities”).

329. See Melish, *supra* note 322, at 26–27.

330. Wendy A. Bach, *Mobilization and Poverty Law: Searching for Participatory Democracy Amongst the Ashes of the War on Poverty*, 20 VA. J. SOC. POL’Y & L. 96, 131–32 (2012); see also Melish, *supra* note 322, at 27; see also NOEL A. CAZENAVE, IMPOSSIBLE DEMOCRACY: THE UNLIKELY SUCCESS OF THE WAR ON POVERTY COMMUNITY ACTION PROGRAMS 5 (2007) (people of color “demanded a greater role in the decision making that affected their day-to-day lives”).

331. McFarlane, *supra* note 145, at 874 (“This mobilization and organization backed by the federal government upset the political balance in cities around the country.”).

332. See CAZENAVE, *supra* note 330, at 14; McFarlane, *supra* note 145, at 872–73.

era.³³³ By 1967, Congress shifted control of the CAAs to local governments,³³⁴ putting “an end to federally funded community action as a major resource for social change.”³³⁵ And, by 1974, the federal agency overseeing the CAAs was dismantled.³³⁶

The legacy of the EOA’s participatory mandate is a complicated one. On the one hand, the “maximum feasible participation” mandate was officially terminated, and the concept has been derided from multiple corners, accused of “being unsubstantiated and misconstrued, politically motivated as a ploy to co-opt social activism, or simply ineffective in assisting the poor.”³³⁷ And of course, the War on Poverty was not won, although it reduced poverty significantly. On the other hand, where it worked, the “maximum feasible participation” requirement was “socially transformative.”³³⁸ As Professor Tomiko Brown-Nagin reflects, “[i]n many communities, [the act] provided the first occasion when people of widely different backgrounds—rich and poor, Black and white, urban and rural—sat down together to work on common problems and design programs.”³³⁹ CAAs also served as “training grounds for many minorities, developing their capacity and thereby increasing their access to new opportunities.”³⁴⁰ Indeed, as Professor Noel A. Cazenave states, the political backlash to CAAs resulted “because they succeeded well beyond the expectations of their planners, not because they failed.”³⁴¹ In Professor Wendy A. Bach’s study of the history of the “maximum feasible participation” mandate in Durham, North Carolina, between 1965 and 1970, she concludes that where the mandate worked, it was due to hard-law requirements for participation, combined with administrative flexibility in implementation, along with federal funding for independent activist organizations.³⁴² In Durham, these commitments served as “a catalyst both for leadership development in poor communities and an opportunity to create programs that were responsive to their needs in the view of community controlled organizations.”³⁴³

333. See Martha J. Bailey & Nicolas J. Duquette, *How Johnson Fought the War on Poverty: The Economics and Politics of Funding at the Office of Economic Opportunity*, 74 J. ECON. HIST. 351 (2014); CAZENAVE, *supra* note 330, at 155–56.

334. See CAZENAVE, *supra* note 330, at 167–68.

335. *Id.* at 168.

336. See Melish, *supra* note 322, at 27; Howard Nemon, *Community Action: Lessons from Forty Years of Federal Funding, Anti-Poverty Strategies, and the Participation of the Poor*, 11 J. POVERTY 1, 5 (2007).

337. Nemon, *supra* note 336, at 14.

338. Brown-Nagin, *supra* note 321, at 2732; see also Bach, *supra* note 330, at 100–01; CAZENAVE, *supra* note 330, at 172.

339. Brown-Nagin, *supra* note 321, at 2732 (quoting ROBERT F. CLARK, *THE WAR ON POVERTY: HISTORY, SELECTED PROGRAMS AND ONGOING IMPACT* 44 (2002)).

340. Nemon, *supra* note 336, at 15.

341. CAZENAVE, *supra* note 330, at 172.

342. Bach, *supra* note 330, at 136–51.

343. *Id.* at 139.

Today, over 1,000 CAAs are operating,³⁴⁴ primarily to deliver social services.³⁴⁵ Public participation in CAAs is ensured through a federally mandated formula that allocates one-third of seats each to community, government, and private sector representatives.³⁴⁶ The struggle to ensure that participation is meaningful continues; one nationwide evaluation of CAAs concluded that “participation leads to a redistribution of power only when local residents and organizations are engaged in problem definition, decision making, implementation, and evaluation.”³⁴⁷ Many CAAs remain committed to enhancing participatory opportunities, such as by conducting regular community forums for providing information and soliciting feedback or training community residents in advocacy strategies.³⁴⁸ Outside the CAA structure, the citizen participation movement in urban politics lives on in multiple grassroots organizations.³⁴⁹ Public participation is also a norm in many other anti-poverty programs, such as public housing³⁵⁰ and workforce investment.³⁵¹

According to Professor Tara J. Melish, a key takeaway with regard to the demise of the “maximum feasible participation” mandate is that its structure did not fit within the social context of its time.³⁵² The mandate itself reflected conflicting values: was it designed merely to serve the poor, to transform their supposed “apathy,” or to mobilize them to seize power?³⁵³ There were adherents to all these views, but none was ascendant. Moreover, as Melish explains, CAAs were squeezed between two irreconcilable trends—bureaucratic centralization at the federal level and “increasing militancy and rights absolutism of the civil and welfare rights movements.”³⁵⁴

By contrast, today’s regulatory systems are increasingly shaped in the “new governance” mold, which in turn may create opportunities for meaningful public participation within algorithmic systems and privacy law.³⁵⁵ New governance is both a descriptive and a normative theory that offers an alternative to the top-down, centralized regulatory structures associated with New Deal programs, which are seen as too rigid for modern

344. See CAZENAVE, *supra* note 330, at 2; Nemon, *supra* note 336, at 2.

345. See Nemon, *supra* note 336, at 5; Brown-Nagin, *supra* note 321, at 2736.

346. See Nemon, *supra* note 336, at 3–4, 16. “By strengthening local government control, limiting local participation, and augmenting social service activity, this legislation had a long-lasting impact on community action.” *Id.* at 4.

347. *Id.* at 3.

348. See *id.* at 17.

349. CAZENAVE, *supra* note 330, at 169. “The community action programs of the 1960s raised the expectations of people previously left out of urban decision-making processes to such a magnitude that no congressional amendment or shift in federal funding priorities could return them to their pre-War on Poverty status.” *Id.* at 181.

350. See generally Lee, *supra* note 197.

351. See generally Bach, *supra* note 196.

352. See Melish, *supra* note 322, at 27.

353. Bach, *supra* note 330, at 119–22; see also Melish, *supra* note 322, at 18; CAZENAVE, *supra* note 330, at 140.

354. Melish, *supra* note 322, at 27.

355. See Bach, *supra* note 196, at 255–57; Melish, *supra* note 322, at 30–34.

conditions of complexity and uncertainty.³⁵⁶ The hallmarks of new governance are flexibility and innovation, public/private collaboration, decentralized and local decision-making, and adaptation of programs over time in line with experience and evaluation.³⁵⁷ In this model, “government acts . . . as a facilitator of the experimentalist enterprise,”³⁵⁸ and accountability is derived in part from involving numerous stakeholders, who give the process “a richer and more effective form of democratic participation on the relevant issues than is possible through voting in general elections.”³⁵⁹ As Professor Orly Lobel, the chief chronicler of the theory, explains, new governance “is a regime based on engaging multiple actors and shifting citizens from passive to active roles.”³⁶⁰ Participation is not only about implementing policy, but also enhancing “the ability of citizens to participate in political and civic life.”³⁶¹

Because the existing data privacy regime (and many algorithmic accountability proposals) contains features of the new governance mold,³⁶² it is possible that adapting public participation norms to privacy law will be less controversial and more feasible than the Economic Opportunity Act’s participation mandate and its highly politicized downfall. In other words, when it comes to today’s privacy law, there may be a better fit between regulatory structure and social context. Existing privacy law already shares some new governance features. Professors Kenneth A. Bamberger and Deirdre K. Mulligan describe the new governance structures within American consumer privacy law, as enforced by the Federal Trade Commission (FTC) and state regulators overseeing data breach notification statutes.³⁶³ For instance, the FTC has collaborated with numerous stakeholders to respond to privacy concerns arising in the online marketplace.³⁶⁴ In so doing, it has exercised its discretion and turned to an array of new-governance “regulatory tools outside the enforcement context, notably publicity, research, best-practice guidance, the encouragement of certification regimes, the enlistment of expert input, and numerous deliberative and participatory processes promoting dialogue with advocates,

356. Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342, 405–06 (2004); see also Melish, *supra* note 322, at 3–5.

357. Orly Lobel, *New Governance as Regulatory Governance*, in THE OXFORD HANDBOOK OF GOVERNANCE 65, 65 (David Levi-Faur ed., 2012).

358. Bach, *supra* note 196, at 256.

359. William H. Simon, *Part II: New Governance Anxieties: A Deweyan Response*, 2010 WIS. L. REV. 727, 736.

360. Lobel, *supra* note 356, at 373.

361. *Id.* at 374.

362. See Selbst, *supra* note 30, at 155 (“A regulation requiring companies to perform AIAs would be an example of a collaborative governance approach.”). Environmental law is notable for its new-governance structures. See Lobel, *supra* note 356, at 345.

363. Kenneth A. Bamberger & Deirdre K. Mulligan, *New Governance, Chief Privacy Officers, and the Corporate Management of Information Privacy in the United States: An Initial Inquiry*, 33 LAW & POL’Y 477, 478 (2011).

364. See *id.* at 484.

industry, and academia.”³⁶⁵ At the same time, state data breach notification laws expanded transparency of corporate privacy practices³⁶⁶ and spurred businesses to operationalize privacy practices within the firm, managed by officers and employees committed to privacy tools.³⁶⁷ These multiple sites of privacy enforcement and oversight within flexible parameters are hallmarks of new governance.

Of course, the current privacy regime, with its strong tilt toward self-regulation, has proven largely ineffective at protecting individuals’ data privacy, suggesting the need for an ongoing role for rights-based laws, federal oversight, and concrete enforcement tools.³⁶⁸ For its part, the GDPR blends a rights-based framework with new governance administration. Under the GDPR, the EU and member state–level data protection authorities have issued broad guidance, leaving businesses to fill in the details with experience, “whether formally by establishing codes of conduct or certification mechanisms . . . or informally through self-regulation, recording and reporting, impact assessments, and ongoing conversations with regulators.”³⁶⁹ Enforcement authority is shared among individuals, civil society groups, data enforcement authorities at the national level; coordination of these groups occurs at the EU level.³⁷⁰ And, as discussed earlier, the GDPR calls for input by citizens when businesses and government agencies conduct internal data impact assessments, a form of stakeholder collaboration that is a typical feature of new governance.

As the U.S. Congress considers comprehensive privacy legislation in the shadow of the GDPR, it is likely that any law that emerges will reflect some aspects of new governance theory. As a result, privacy law in this mode might be more amenable to public participation than the highly contested terrain of anti-poverty programs. In fact, the concept of AIAs—and their increasing prominence in data privacy proposals—reflects new governance’s emphasis on bottom-up, decentralized processes and adjustments in response to ongoing monitoring and stakeholder feedback. Still, a core challenge of new governance is including marginalized people in collaborative “situations of pervasive competition, power imbalances, and limited resources.”³⁷¹ These dynamics are heightened given the massive profits at stake in the big-data economy. There is “a fundamental conflict between the interests of the companies that want to maximize profits and the public that bears the burden of the externalities of these profit-making enterprises.”³⁷² Reflecting

365. *Id.*

366. *See id.*

367. *See id.* at 504.

368. *See generally* Douglas NeJaime, *When New Governance Fails*, 70 OHIO ST. L.J. 323 (2009). *See also* David A. Super, *Laboratories of Destitution: Democratic Experimentalism and the Failure of Antipoverty Law*, 157 U. PA. L. REV. 541 (2008).

369. Anupam Chander, Margot E. Kaminsky & William McGeeveran, *Catalyzing Privacy Law*, 105 MINN. L. REV. 1733, 1760 (2021).

370. *See id.* at 1759–60.

371. Lobel, *supra* note 356, at 458.

372. Jason M. Solomon, *Law and Governance in the 21st Century Regulatory State*, 86 TEX. L. REV. 819, 836 (2008).

on the experience of public participation within the EOA and its successors, social welfare statutes, is essential. Professor Jaime A. Lee, who has extensively studied public participation mandates in anti-poverty programs, highlights two preconditions for participation within new governance regimes: “[A]ll participants must be motivated toward a common goal, and second, they must recognize what the other participants contribute to that goal.”³⁷³ Importantly, she adds, “[t]he recognition that meaningful participation by marginalized stakeholders does not inevitably occur, but requires intervention, is an important one as it is frequently overlooked, leaving the model susceptible to producing merely cosmetic processes.”³⁷⁴ Thus, for public participation in data-centric regimes to be meaningful for marginalized communities, it is necessary to provide financial and technical support to grassroots organizations fighting for data justice, to intentionally design participatory processes with the input of disadvantaged communities, to yield space for disadvantaged persons to define their own privacy needs, and to bring multiple stakeholders together for engaged problem-solving, oversight, and enforcement.

C. Land Use

Public participation is also a long-standing feature of land use decision-making.³⁷⁵ Here, the “disconnect between principle and practice”³⁷⁶ echoes the mixed history of public participation requirements within environmental decision-making and social welfare programs. Land use is traditionally a local issue. Local governments have the responsibility to maintain a functioning city through “planning, financing, and developing a variety of commercial and residential facilities, amenities, and uses of land.”³⁷⁷ Localities regulate land use through a variety of mechanisms, such as zoning.³⁷⁸ In addition, they may engage in public/private development projects, and they implement federally funded projects focused on economic and community development. In these various processes, the public has formal opportunities to be heard. Indeed, “[p]articipation or voice is a particularly venerable legitimator of local government.”³⁷⁹ Given the current vacuum of federal privacy regulation, local jurisdictions are increasingly regulating privacy, making them potentially important sites for implementing public participation norms. Looking at the experience of public participation in land use decision-making is thus highly relevant.

373. Lee, *supra* note 16, at 407.

374. *Id.* at 434.

375. See McFarlane, *supra* note 145, at 867–68.

376. *Id.* at 864.

377. *Id.* at 866.

378. Foster, *supra* note 256, at 46.

379. Carol M. Rose, *Planning and Dealing: Piecemeal Land Controls as a Problem of Local Legitimacy*, 71 CALIF. L. REV. 837, 883–85 (1983) (discussing the strong anti-federalist strain of thought that persists in “American discussions of local government”).

As far back as 1926, the U.S. Department of Commerce issued the model Standard State Zoning Enabling Act,³⁸⁰ which was widely adopted by states across the country.³⁸¹ The code recommended the requirement of a public hearing, open to all citizens, at least fifteen days prior to a zoning code's adoption or revision.³⁸² Public hearings are also the norm when local governments make site-specific decisions, called adjustment decisions, which can exempt certain projects from zoning requirements or grant conditional uses. Since the participatory revolution of the 1970s, “[e]ach year, thousands of neighbors, and others, appear before zoning boards to voice support or, more commonly, opposition to zoning changes or special exceptions/variances regarding specific development projects.”³⁸³ Despite the positive rhetoric of community control, participatory processes can be subverted by organized interests opposed to increased density or other development characteristics.³⁸⁴ These “Not in My Backyard” (NIMBY) campaigns can result in a small and vocal portion of a community undermining local-government attempts to increase affordable housing.³⁸⁵ Professor Anika Singh Lemar warns about the harms of over-participation, such as when affluent residents with power overwhelm people suffering from disadvantages in land use hearings.³⁸⁶

Participatory opportunities in land use decision-making often fail to meet the deliberative ideal³⁸⁷ because the standard model of public participation in land use is the public hearing. This provides for one-way communications from local government officials to the public or from the public to government officials, without dialogue. Hearings are often structured in ways that limit opportunities for input, such as when hearings are held in inconvenient locations and/or during work hours, require advance sign-ups,

380. U.S. DEP'T OF COM., STANDARD STATE ZONING ENABLING ACT (1926), <https://www.govinfo.gov/content/pkg/GOVPUB-C13-18b3b6e632119b6d94779f558b9d3873/pdf/GOVPUB-C13-18b3b6e632119b6d94779f558b9d3873.pdf> [https://perma.cc/3LK6-XMSL].

381. *Id.* at 1. On various goals that local governments may have with regard to zoning, see Christopher Serkin, *Divergence in Land Use Regulations and Property Rights*, 92 S. CAL. L. REV. 1055, 1059–61 (2019).

382. U.S. DEP'T OF COM., *supra* note 381, at 7–8.

383. Wendell Pritchett & Shitong Qiao, *Exclusionary Megacities*, 91 S. CAL. L. REV. 467, 492 (2018). “These small adjustments are the everyday fare of local land regulations.” Rose, *supra* note 379, at 841; *see also* Daniel P. Selmi, *The Contract Transformation in Land Use Regulation*, 63 STAN. L. REV. 591, 637 (2011).

384. John Infranca, *The New State Zoning: Land Use Preemption amid a Housing Crisis*, 60 B.C. L. REV. 823, 831 (2019).

385. *Id.* at 831; Pritchett & Qiao, *supra* note 383, at 493 (“Many legal practitioners, developers, and academics have come to criticize the ‘neighborhood veto’ for its role in impeding development and exacerbating related economic and racial segregation.”).

386. *See* Anika Singh Lemar, *Overparticipation: Designing Effective Land Use Public Processes*, 90 FORDHAM L. REV. 1083 (2021).

387. *See* McFarlane, *supra* note 145, at 864; Matthew J. Parlow, *Civic Republicanism, Public Choice Theory, and Neighborhood Councils: A New Model for Civic Engagement*, 79 U. COLO. L. REV. 137, 141–42 (2008).

and limit time to speak.³⁸⁸ Further, hearings are typically held after the local government has already settled on a plan (or negotiated one with a developer),³⁸⁹ making the process one of “decide, announce, and defend” in lieu of a “true discussion or engagement of the public in a deliberative decision making process.”³⁹⁰ Public officials face financial pressures to push developments forward, and property owners hold the purse strings.³⁹¹ From their perspective, public participation can raise the specter of delays, disruptions, and wasted time.³⁹² The “democracy-deficient approach” of public hearings “yields predictable results: immediate and generous benefits for the developers; costs borne by taxpayers; promised benefits to the general public, inchoate and unrealized, and inequitably spread.”³⁹³ Moreover, as with other participatory systems, a core challenge is how to meaningfully involve disadvantaged communities despite differences in race and class, especially given that discourse “marginalizes those who do not talk or those who talk in marginalized ways.”³⁹⁴

It is useful to contrast these failures with another urban planning tool called participatory budgeting. Participatory budgeting involves giving citizens opportunities to discuss and decide how a portion of the municipal budget should be spent.³⁹⁵ It arose in the Brazilian city of Porto Alegre in the 1970s, heavily influenced by Paulo Freire’s theories in *Pedagogy of the Oppressed*,

388. Bezdek, *supra* note 146, at 27; *see also* McFarlane, *supra* note 145, at 917 (“[M]any participatory schemes are either too broad or too narrow, implemented too late, or required to take place so rapidly that they are doomed to be ineffective, alienating, and counter-productive.”); Damon Y. Smith, *Participatory Planning and Procedural Protections: The Case for Deeper Public Participation in Urban Redevelopment*, 29 ST. LOUIS U. PUB. L. REV. 243, 249 (2009) (“Municipalities and redevelopment officials reacted cynically to these federal requirements and, in a legacy that endures to this day, often provided insufficient notice of perfunctory hearings at times and locations inconvenient to those ultimately impacted by the proposed redevelopment.”).

389. *See* Alejandro E. Comacho, *Community Benefit Agreements: A Symptom, Not the Antidote, of Bilateral Land Use Regulation*, 78 BROOK. L. REV. 355, 360–61 (2013); *see also* Selmi, *supra* note 383, at 640.

390. Bezdek, *supra* note 146, at 27; *see also* Edward W. De Barbieri, *Urban Anticipatory Governance*, 46 FLA. ST. U. L. REV. 75, 84–86 (2018); *see also* Douglas A. Jordan & Michele A. Hentrich, *Public Participation Is on the Rise: A Review of the Changes in the Notice and Hearing Requirements for the Adoption and Amendment of General Plans and Rezoning Nationwide and in Recent Arizona Land Use Legislation*, 43 NAT. RES. J. 865, 873 (2003).

391. Bezdek, *supra* note 146, at 47.

392. McFarlane, *supra* note 145, at 864.

393. Bezdek, *supra* note 146, at 47; *cf.* Craig Anthony (Tony) Arnold, *The Structure of the Land Use Regulatory System in the United States*, 22 J. LAND USE & ENV’T L. 441, 475 (2007) (“Simplistic structural models at either extreme of this conflict’s spectrum—that powerful and wealthy development and business interests control local land use policy or that growth-distrusting local homeowners who vote in local elections to protect their property interests control local land use policy—fail to convey the many ways by which power over land use is exercised, contested, and shared.”).

394. McFarlane, *supra* note 145, at 915.

395. *See* HOLLIE GILMAN, PARTICIPATORY BUDGETING AND CIVIC TECH: THE REVIVAL OF CITIZEN ENGAGEMENT 5–6 (2016); *see also* Gianpaolo Baiocchi & Ernesto Ganuza, *Participatory Budgeting: As If Emancipation Mattered*, 42 POL. & SOC. 29, 32 (2014); Yves Cabannes, *Participatory Budgeting: A Significant Contribution to Participatory Democracy*, 16 ENV’T & URBANIZATION 27 (2004).

which conceived of liberatory dialogue as “an act of creation; it must not serve as a crafty instrument for the domination of one person by another.”³⁹⁶ Participatory budgeting has been heavily studied.³⁹⁷ In Porto Alegre, thousands of poor residents became deeply involved in government for the first time,³⁹⁸ “diligently coming to meetings week after week to debate the arcana of municipal finances and regulations as they decided on investment priorities for their neighborhoods, boroughs, and the city itself.”³⁹⁹ People learned how to “navigate the complex process and devise strategies that mitigate stark social differences.”⁴⁰⁰ Improvements in the quality of life were dramatic: sanitation service coverage rose from 49 to 98 percent in eight years, half of the unpaved streets were paved, student enrollment doubled, public housing was built, and bus service expanded to previously neglected neighborhoods.⁴⁰¹ Participatory budgeting “has been shown to improve governance, reinforce democracy, and contribute significantly to the well-being of the poorest citizens.”⁴⁰² It has spread across the world,⁴⁰³ including to at least a dozen cities in the United States.⁴⁰⁴ However, its format—and accordingly, its transformative potential—differs widely by jurisdiction.⁴⁰⁵ Pateman views participatory budgeting (in its most robust

396. PAULO FREIRE, *PEDAGOGY OF THE OPPRESSED* 89 (Myra Bergman Ramos trans., Bloomsbury 2018) (2000).

397. See BRIAN WAMPLER, *PARTICIPATORY BUDGETING IN BRAZIL: CONTESTATION, COOPERATION, AND ACCOUNTABILITY* 6, 27 (2010). “Participatory Budgeting has been the subject of dozens of international exchange programs, literally hundreds of conferences, and has been the primary reason for the existence (and funding) of several NGOs that promote and help implement it.” Ernesto Ganuza & Gianpaolo Baiocchi, *The Power of Ambiguity: How Participatory Budgeting Travels the Globe*, 8 J. PUB. DELIBERATION, no. 2, 2012, at 1, 1.

398. “Porto Alegre grew from a small number of participants, just 976 in 1990, to an average of 35,000 a year between 2001 and 2004. The [Porto Alegre working party] government invested heavily in mobilizing individuals to participate.” Brian Wampler, *When Does Participatory Democracy Deepen the Quality of Democracy?: Lessons from Brazil*, 41 COMPAR. POL. 61, 71 (2008).

399. Ganuza & Baiocchi, *supra* note 397, at 6; see also WAMPLER, *supra* note 397, at 34.

400. WAMPLER, *supra* note 397, at 32.

401. Josh Lerner, *Participatory Budgeting: Building Community Agreement Around Tough Budget Decisions*, 100 NAT’L CIVIC REV. 30, 30 (2011).

402. GILMAN, *supra* note 395, at 6.

403. See Cabannes, *supra* note 395, at 27.

404. See GILMAN, *supra* note 395, at 8–14; see also Lerner, *supra* note 401, at 32–35 (discussing participatory budgeting in Chicago); Alexa Kasdan & Erin Markman, *Participatory Budgeting and Community-Based Research: Principles, Practices, and Implications for Impact Validity*, 39 NEW POL. SCI. 143, 146 (2017) (discussing participatory budgeting in New York City). The practice spread to a dozen cities by 2015; and “[alt]hough [participatory budgeting] has grown rapidly in the US, most processes are still limited to relatively small and constrained budget funds.” Madeleine Pape & Josh Lerner, *Budgeting for Equity: How Can Participatory Budgeting Advance Equity in the United States?*, 12 J. PUB. DELIBERATION, no. 2, 2016, at 1, 10.

405. See Baiocchi & Ganuza, *supra* note 395, at 29; see also Adalmir Marquetti, Carols E. Schonerwald da Silva & Al Campbell, *Participatory Economic Democracy in Action: Participatory Budgeting in Porto Alegre, 1989–2004*, 44 REV. RADICAL POL. ECON. 62 (2011). Professor Brian Wampler writes that the core components of successful participatory budgeting are “high levels of mayoral support, a civil society that can engage in both cooperation and contestation, and rules that delegate specific types of direct authority to citizens.” WAMPLER, *supra* note 397, at 35.

form) as a prime example of participatory democracy in action because it transfers decision-making power to citizens.⁴⁰⁶ This transformative potential is largely missing in land use decision-making.

Not surprisingly, where public participation in land use decision-making has had a meaningful impact for marginalized communities, it has tended to be in forms other than the formal hearing process. In various settings, neighborhood residents have asserted themselves in planning processes, gaining expertise and using an array of techniques, including design charettes, impact assessments, land use mapping, and visual survey techniques.⁴⁰⁷ Many neighborhoods operate community development corporations that allow them to direct their own neighborhood development.⁴⁰⁸ In line with these innovative strategies, experts agree that relying solely on a post-planning public hearing model is inadequate. Surveying the literature and real-life examples, Bezdek concludes that meaningful public participation requires purposeful design of participatory processes, public involvement early in the planning process, transparency as to how the process will unfold and who will be involved, and inclusive and equitable outreach to “members of communities historically burdened by mal-distributed environmental and economic siting decisions.”⁴⁰⁹ Professor Audrey McFarlane stresses that public participation requires “hard law,” rather than soft norms, along with enforcement mechanisms so that communities have leverage to ensure that participatory requirements are followed.⁴¹⁰ As Arnstein established decades ago, participation and power are intertwined and often in tension. Without attending to this friction, public participation in the datafied society is doomed to fail.

CONCLUSION

Public participation is touted as a desirable addition to regulating algorithmic systems, particularly with regard to the emerging tool of algorithmic impact assessments. This results from an increasing recognition that data-centric technologies have disproportionately harmful impacts on marginalized people. Yet, public participation in the datafied society has been undertheorized and risks becoming a form of “window dressing,” in which the views of marginalized people are solicited and then ignored, while giving cover to the entities that deploy the systems. In designing public

406. Carole Pateman, *Participatory Democracy Revisited*, 10 PERSPS. ON POL. 7, 10 (2012).

407. See Arnold, *supra* note 393, at 476; see also Bezdek, *supra* note 146, at 6.

408. Lemar, *supra* note 386, at 1097 (“For decades, the community development movement furthered accountable development by undertaking projects directed by community residents acting through locally controlled nonprofit, mission-motivated organizations.”).

409. Bezdek, *supra* note 146, at 50; see also McFarlane, *supra* note 145, at 930–31.

410. McFarlane, *supra* note 145, at 929–31. Similarly, in a detailed study of HOPE VI, a federally funded program that redeveloped public housing into mixed-income developments, Professor Lisa T. Alexander writes: “[A] healthy balance between traditional public law and new governance approaches may be necessary to achieve innovation in social reform under circumstances of conflict.” Lisa T. Alexander, *Stakeholder Participation in New Governance: Lessons from Chicago’s Public Housing Reform Experiment*, 16 GEO. J. ON POVERTY L. & POL’Y 117, 175 (2009).

participation mechanisms for the datafied society, we do not need to start from scratch. There are ample lessons from other regulatory regimes that similarly impact the needs and interests of marginalized people.

Public participation mandates in the areas of environmental regulation, anti-poverty programs, and land use have a mixed record in terms of empowerment and equity. When they work, it is because the participatory mechanisms themselves were intentionally designed with input from impacted communities. Moreover, public participation is more likely to be meaningful when logistical barriers to participation are removed, the expertise of impacted communities is valued, the law contains enforceable requirements for participation, capacity building is part of the participatory plan, and the public has an opportunity to shape outcomes rather than to simply comment on a preexisting plan. Public participation is also an ongoing process; it needs to be included at all phases of a project, from the decision to adopt an algorithmic system, to design and development, to deployment, to ongoing monitoring. Of course, we also need to expand our vision beyond existing public participation regimes and their largely analog methods. There is emerging research on public participation tools in algorithmic systems, including technologies for engaging citizens, such as platforms for crowdsourcing, civic consultation, online petitions, and online citizen panels.⁴¹¹

Public participation is most essential with regard to algorithmic systems that can adversely impact people, that is, leave them worse off than if they had never been subject to the system. Thus, it should be incorporated into both public and private systems that risk disparate impacts on people protected by antidiscrimination laws. In addition, public input can improve automated decision-making systems that act as gatekeepers to basic, human needs, such as those that determine access to housing, employment, health care, education, financial services, and public benefits. Other systems that would benefit from public input include those that deploy novel technologies that rely on personal data, such as biometric systems, those that rely on sensitive categories of data, those that surveil marginalized communities, and those that implicate ethical dilemmas, such as computer assisted vehicles. The stakes go beyond individual people. Our communities are stronger when algorithmic systems are designed with justice and equity in mind. Without public input into the data-centric technologies shaping our lives, democracy itself is at risk. Thus, to move beyond window dressing is to open the window to a better future for everyone.

411. DATA JUST. LAB, ADVANCING CIVIC PARTICIPATION IN ALGORITHMIC DECISION-MAKING: A GUIDEBOOK FOR THE PUBLIC SECTOR 15–16 (2021), https://datajusticelab.org/wp-content/uploads/2021/06/PublicSectorToolkit_english.pdf [<https://perma.cc/ZM3T-DZFC>].