

DATA &
SOCIETY

Democratizing AI: Principles for Meaningful Public Participation

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Governmental and private actors are deploying AI in ways that are dramatically and permanently shaping people’s lives and opportunities—and yet the public lacks input on how these data-centric technologies are used. At all hours of the day and night, AI is humming in the background of our lives. Many applications of AI are useful. People can use AI tools to help diagnose diseases, provide GPS navigation, offer online financial services, host remote work meetings, design buildings, enable online shopping, and much more.

Yet AI also presents serious risks. Misinformation pervading social media sways elections and undermines democracy. Workplace surveillance harms workers’ physical and mental health and depresses wages. Facial recognition technology leads to the wrongful arrests of Black men. Deepfakes insert women’s faces into nonconsensual porn. Digital profiling serves as a gatekeeper to housing, employment, education, and health care—with low-income people and minorities on the losing end of these sorting systems.¹

In light of the harms of AI—a term used here as shorthand for a broad range of automated decision-making systems—there are increasing calls across civil society, academics, and policymakers to integrate democratic and human-centered values into AI through public participation.² Public participation consists of measures that offer opportunities for people most likely to be affected by a given system to have influence into the system’s design and deployment, including decision-making power.³

Critical AI Uses for Public Participation

Successfully incorporating public participation into AI is especially critical in areas that hold the greatest risks to civil and human rights, including technologies used for the following:

- Access to government services and benefits
- Gathering and retention of biometric, health, or other sensitive personal information
- Surveillance of vulnerable populations
- Policing functions of the state, such as law enforcement and child welfare
- Gatekeeping access to life necessities such as housing, credit, education, employment, and health care
- Settings implicating basic human rights and differential power relationships, such as the workplace
- Democracy and elections; also social media and commercial platforms affecting those functions
- Novel purposes that raise ethical challenges, such as self-driving cars and large language models (e.g., ChatGPT)

1. Michele Gilman, *Poverty Lawgorithms: A Poverty Lawyer’s Guide to Fighting Automated Decision-Making Harms on Low-Income Communities* (New York: Data & Society, 2020), <https://datasociety.net/wp-content/uploads/2020/09/Poverty-Lawgorithms-20200915.pdf>.
2. See, e.g., *Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People* (Washington: The White House Office of Science and Technology Policy, 2022), <https://www.whitehouse.gov/wp-content/uploads/2022/10/Blueprint-for-an-AI-Bill-of-Rights.pdf>.
3. For an exploration of meaningful stakeholder participation with regard to AI, see European Center for Not-for-Profit Law, *Moving from Empty Buzzwords to Real Empowerment: A Framework for Enabling Meaningful Engagement of External Stakeholders in AI* (2023), <https://ecn1.org/news/moving-empty-buzzwords-real-empowerment-framework-enabling-meaningful-engagement-external>.

Evidence from multiple fields indicates that, when done right, **public participation helps to avert harmful impacts** of new projects. Input from the public can result in concrete improvements to a program, or in the rejection of proposals that community members did not support. It brings a range of social and cultural values into decision-making above and beyond narrow technical parameters. **Public participation adds legitimacy to decisions** because people trust processes they understand and influence. **It improves accountability** by adding layers of scrutiny and discussion between the public and decision-makers.

Several characteristics of AI make public participation uniquely necessary. First, AI systems can produce **inaccurate, biased, and discriminatory outcomes**, often because the data fed into these systems reflects historical and social inequities that exist in the real world.⁴

Public Benefits and Identity Verification

During the pandemic, Joe Clark lost his food service job and applied for unemployment insurance.⁵ The state's online platform required that he upload certain documents to prove his identity. However, the platform was not fully accessible via a smartphone, which is how Clark—and one-third of low-income people—access the internet. Moreover, the instructions about how to upload the documents were confusing and highly technical, and the system frequently locked up. The state agency lacked staff to help him navigate its online system. Privileged people designed these platforms with users like themselves in mind—leaving low-income people, senior citizens, non-English speakers, and people without digital literacy struggling to obtain the benefits they needed to meet their basic needs. *If the platform designers had tested the systems with input from users, these economic injustices could have been avoided.*

Notably, the scope and scale of AI means that embedded biases and algorithmic failures will have far-reaching effects.⁶ Second, **many AI methods are black boxes that produce results that are not easily explained or challenged**, even as they affect people's lives in dramatic ways.⁷ Third, **data scientists who build AI systems** often lack the perspective or context to understand the real-world impacts of their design choices.⁸

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4. Meredith Broussard, *More than a Glitch: Confronting Race, Gender, and Ability Bias in Tech* (Cambridge: MIT Press, 2023).
 5. Michele Estrin Gilman, "Me, Myself, and My Digital Double: Extending Sara Greene's Stealing (Identity) From the Poor to the Challenges of Identity Verification," *Minnesota Law Review Headnotes* (2021): 301–332, https://minnesotalawreview.org/wp-content/uploads/2022/03/Gilman_Finalfmt.pdf
 6. Inioluwa Deborah Raji, et al., "The Fallacy of AI Functionality," FAccT '22: 2022 ACM Conference on Fairness, Accountability, and Transparency, June 2022, <https://dl.acm.org/doi/10.1145/3531146.3533158>.
 7. Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Cambridge: Harvard University Press, 2015).
 8. Sarah Myers West, Meredith Whittaker & Kate Crawford, "Discriminating Systems: Gender, Race, and Power in AI – Report," AI Now Institute, April 2019, <https://ainowinstitute.org/publication/discriminating-systems-gender-race-and-power-in-ai-2>.

Even as AI presents technical and engineering innovations, the systems present fundamental risks to people, their families, and their communities. Public participation in AI will not be easy. But there are foundational lessons to apply from other domains. This policy brief builds on a comprehensive review of evidence from public participation efforts in policy domains such as anti-poverty programs and environmental policy.⁹ It summarizes evidence-based recommendations for ways to better structure public participation processes for AI.

PRACTICAL GUIDANCE FOR MEANINGFUL PUBLIC PARTICIPATION

Public participation mechanisms must be carefully designed, or they can backfire.¹⁰ Traditional participatory mechanisms involve public hearings in which citizens feel they are “talked at,” with no real opportunity to affect the outcome. Further, the people who show up at public hearings tend to have greater socioeconomic resources, while others—working odd hours, multiple jobs, or juggling childcare duties—are too busy or burdened to come. Even worse, policymakers can use public participation as a form of “window dressing” to approve their preferred policies, generating distrust and potentially alienating communities from the political process.

To address risks and harms presented by AI, Big Tech companies have increasingly engaged third-party consultants and adopted various advisory councils. But these initiatives—whatever their merits for improving technical systems—do not empower the communities affected by AI.¹¹ This is not public participation.

Fortunately, policymakers do not need to design public participation for AI on a blank slate. Decades of public participation in other fields provide valuable lessons. In particular, environmental law—as shaped by the environmental justice movement—has decades of experience with public participation mandates, and it is an apt reference case for data and technology.¹² Under the National

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9. Michele Estrin Gilman, “Beyond Window Dressing: Public Participation for Marginalized Communities in the Datafied Society,” *Fordham Law Review* 91 (November 2022): 503–555, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4266250.
 10. See Jaime Alison Lee, “‘Can You Hear Me Now?’ :Making Participatory Governance Work for the Poor,” *Harvard Law & Policy Review* 7 (Summer 2013): 405–441, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2485325.
 11. Robyn Caplan, “Networked Governance,” Yale-Wikimedia Initiative on Intermediaries & Information, August 29, 2022, <https://yjolt.org/networked-governance>.
 12. Environmental Impact Statements are the prime model for numerous proposals to require algorithmic impact assessments for AI systems. See Andrew D. Selbst, “An Institutional View of Algorithmic Impact Assessments,” *Harvard Journal of Law & Technology* 35 (Fall 2021): 117–191, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3867634; Emanuel Moss, et al., *Assembling Accountability: Algorithmic Impact Assessment for the Public Interest* (New York: Data & Society, 2021), <https://datasociety.net/library/assembling-accountability-algorithmic-impact-assessment-for-the-public-interest/>.

Environmental Policy Act of 1969 (NEPA), federal agencies must prepare an Environmental Impact Statement (EIS) before approving, funding, or taking any major action that might have significant effects on the environment.¹³ The EIS process engages multiple forms of public participation, refined over decades. In addition, due to a 1994 executive order addressing environmental justice, the EIS analysis must consider environmental impacts on minority and low-income groups in the decision-making process.¹⁴

Housing and Facial Recognition Technology

In 2019, the tenants at Atlantic Plaza Towers in Brooklyn were told that their keys would be replaced with facial recognition technology.¹⁵ Going forward, their landlord explained, they would gaze into a camera rather than use their keys to access their homes. The tenants at the rent-stabilized building were concerned about the technology's low accuracy rates for women and people of color. They were also worried the data would be used to generate evidence for evictions or be shared with law enforcement. The tenants engaged in public protests, then hired lawyers and filed a formal complaint. The landlord ultimately dropped the plan.¹⁶ *If the landlord had asked for the tenants' input in advance, or if the city had adopted laws or guidance for public input into appropriate uses of biometric data, the situation may never have devolved into litigation.*

While the EIS process is not perfect, studies show that the EIS transparency and public input mandates can generate better environmental outcomes.¹⁷ The process can also impel agencies to abandon certain projects that are likely to generate public disapproval.¹⁸ However, these positive outcomes do not happen inevitably. They depend on intentional and high-quality processes of public participation.¹⁹

With lessons from NEPA and other sectors, this brief proposes the following features of meaningful public participation in AI. While **there is no one-size-fits-all model**, the following guidelines can promote opportunities for the public to truly affect and improve the technologies shaping our lives.

13. 42 U.S.C. Sec. 4321–4347.

14. Exec. Order 12898, Federal Register 59, FR 7629 (February 11, 1994), <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>.

15. Ginia Bellafante, “The Landlord Wants Facial Recognition in Its Rent-Stabilized Buildings. Why?” *The New York Times*, March 28, 2019, <https://www.nytimes.com/2019/03/28/nyregion/rent-stabilized-buildings-facial-recognition.html>.

16. Yasmin Gagne, “How we fought our landlord’s secretive plan for facial recognition—and won,” *Fast Company*, November 22, 2019, <https://www.fastcompany.com/90431686/our-landlord-wants-to-install-facial-recognition-in-our-homes-but-were-fighting-back>.

17. Thomas Dietz and Paul C. Stern, eds., *Public Participation in Environmental Assessment and Decision Making* (Washington: The National Academies Press, 2008) (“on average, public participation is associated with better results, in terms of criteria of quality, legitimacy, and capacity”).

18. Robert G. Dreher, *NEPA Under Siege: The Political Assault on the National Environmental Policy Act* (Washington: Georgetown University, 2005).

19. Mark S. Reed, “Stakeholder participation for environmental management: A literature review,” *Biological Conservation* 141 (October 2008): 2417–2431.

1: Include public participation throughout all stages of AI development.

Public participation should be built into all phases of the AI development life cycle—from the decision to adopt an AI tool to initial concept design to real-world deployment and beyond—to identify and reduce harms. **Early-stage public participation ensures that decision-makers do not become wedded to a preconceived decision** before receiving public input. Once a decision is made, it can be difficult for the public to have an impact on it, rendering their participation tokenistic. The methods and means of public participation will vary with respect to the phase in the development life cycle, which includes problem formulation, procurement processes (for government adoption of AI), data collection, model selection and training, deployment, operation, and ongoing monitoring.²⁰ Affected communities, advocates, domain experts, and practitioners have essential input that can improve systems and prevent harm in each phase.

2: Equity and social justice commitments should guide every aspect of participation.

Ensuring equity, trust, and accessibility **requires removing logistical barriers to participation.**²¹ When in-person meetings are appropriate, they should be held at hours that working people can attend and in easily accessible locations. Transportation, food, childcare, and other financial assistance may need to be provided. In addition, language access may be required to ensure that non-English speakers can participate, and processes must be accessible for persons with disabilities.²² Communications with the public must be written in plain and clear language. When participation is being held through online mechanisms, similar logistical considerations are necessary, as well as ensuring that participants have access to technology and the ability to use it effectively.

Moreover, it is not enough to announce a process and hope that affected people materialize. Rather, **there must be an affirmative plan to identify community groups and conduct outreach to them.** The opportunities for participation should be publicized through multiple channels and through different messengers to reach people where they access information. Diversity among participants should be reflected across multiple dimensions including geography, digital technology experience and use, and intersectional identities such as race, class, national origin, gender, and ability.

20. For one description of the AI lifecycle, see U.S. Department of Commerce, NIST, *Artificial Intelligence Risk Management Framework* (AI RMF 1.0), (January 2023), <https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf>.

21. These participatory norms are part of environmental justice, see Federal Interagency Working Group on Environmental Justice and NEPA Committee, *Promising Practices for EJ Methodologies in NEPA Reviews* (March 2016), <https://www.epa.gov/environmentaljustice/ej-iwg-promising-practices-ej-methodologies-nepa-reviews>; U.S. Environmental Protection Agency, *Guidance on Considering Environmental Justice During the Development of Regulatory Actions* (May 2015), <https://www.epa.gov/environmentaljustice/model-guidelines-public-participation>; National Environmental Justice Advisory Council, *Model Guidelines for Public Participation: An Update to the 1996 NEJAC Model Plan for Public Participation* (January 25, 2013), <https://www.epa.gov/sites/default/files/2015-02/documents/recommendations-model-guide-pp-2013.pdf>.

22. Partnership on Employment & Accessible Technology (PEAT), “Telework & Accessibility,” accessed May 30, 2023, <https://www.peatworks.org/digital-accessibility-toolkits/telework-and-accessibility/>.

3: Build the technical capacity of communities while also acknowledging their expertise.

Capacity building of affected communities is essential so that people can participate as equal partners in decision-making processes. Participants may need education, training, and support to understand and comment on complex technical issues. Studies show that providing technical advisers to affected populations in environmental programs not only increases public confidence in projects, but also leads to better decisions.²³

Relatedly, decision-makers must recognize affected communities as experts. Members of marginalized groups in our society have unique and deep knowledge of their goals, needs, and exposures to AI risks. **Public participation is a democratic right. Affected people do not need to know how to build an algorithm to have an opinion on how automated decision-making systems should (or should not) affect their lives.**

4: Build—and budget for—an institutional commitment to public participation.

The public and private entities that adopt and/or regulate AI tools need to maintain an internal culture that values participation as a goal in and of itself and a willingness to accept critiques and new ideas. **AI adopters must commit to acting on the results of participatory processes and sharing power with the public,** which in turn makes it more likely that stakeholders will engage seriously.

There are models for institutional commitment. In a guide to public participation, the US Department of Transportation states that “public involvement is not just a paperwork exercise but is prioritized, budgeted for, and overseen by qualified staff members dedicated to carrying out the process.”²⁴ Importantly, funding for staff development, public participation activities, and necessary research into the demographics of affected communities should be a line item of every project. The National Institute of Standards and Technology (NIST) advises that to limit the risks of AI, entities using AI must include “personnel with expertise in participatory practices” who can mediate between the public and technical experts.²⁵

5: Be clear about the goals of participatory processes and share clear expectations about which decisions can be affected via public input.

Transparency about goals and processes is essential. To build and maintain trust with communities, **organizations designing or implementing AI systems must be clear about participatory**

23. Jonathan Skinner-Thompson, “Procedural Environmental Justice,” *Washington Law Review* 97 (June 2022): 399–458, <https://washingtonlawreview.org/procedural-environmental-justice/>.

24. U.S. Department of Transportation, Promising Practices for Meaningful Public Involvement in Transportation Decision-Making, (Washington: U.S. Department of Transportation, 2022), <https://www.transportation.gov/priorities/equity/promising-practices-meaningful-public-involvement-transportation-decision-making>.

25. U.S. Department of Commerce and NIST, “Risk Management Playbook (Govern 5.1)”, accessed May 30, 2023, https://airc.nist.gov/AI_RMF_Knowledge_Base/Playbook/Govern#Govern%205.1.

process goals and be willing to change them when the public has different goals.²⁶ Thus, from the start of the process, **the public should play a role in identifying the goals of participation** and shaping the participatory processes most appropriate to the AI involved and the communities affected.

Workplace and Health Care Automation

Nancy Morrell is a Medicaid-funded caretaker for her disabled sister, providing her with full-time care seven days a week.²⁷ As of 2021, home care workers such as Morrell must use a mobile app called electronic visit verification (EVV)²⁸ to verify their locations, activities, and hours. When the EVV requirement went into effect, Morrell could not access the system for several weeks, her paychecks were late, and numerous shifts were red-flagged for no apparent reason. These glitches are common. Moreover, the app requires her to clock in and out as much as four times a day, disrupting her ability to care for her sister. In many states, EVV uses geofencing to draw boundaries around a client's home, leaving clients and caregivers feeling as though they are under house arrest. Although federal law requires that states seek "stakeholder input" when they adopt EVV, the term is left undefined, and labor and disability advocates have been left out of the decision-making process. *Without meaningful public participation, EVV fails to acknowledge the day-to-day needs of care workers and their clients and is actively harming the quality of care of our most vulnerable citizens.*

6: Design participation methods for high-quality engagement.

Many mechanisms for public participation exist. These range from surveys and polls that can capture views of large groups to small deliberative bodies, such as "citizen juries," in which experts educate a small group of citizens about an issue over several days, followed by the jury deliberating, voting, and making recommendations. **There are countless real-world engagement methods²⁹**—many of which are already being used and evaluated in the nascent field of public participation for AI.³⁰

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26. Goals can vary along a spectrum of public participation, with increasing public influence at each successive level, see International Association for Public Participation, "IAP2 Spectrum of Public Participation," https://cdn.ymaws.com/www.iap2.org/resource/resmgr/pillars/Spectrum_8.5x11_Print.pdf.
 27. Virginia Eubanks and Alexandra Mateescu, "‘We don’t deserve this’: new app places US caregivers under digital surveillance," *The Guardian*, July 28, 2021, <https://www.theguardian.com/us-news/2021/jul/28/digital-surveillance-caregivers-artificial-intelligence>.
 28. Alexandra Mateescu, *Electronic Visit Verification: The Weight of Surveillance and the Fracturing of Care* (New York: Data & Society, 2021), <https://datasociety.net/library/electronic-visit-verification-the-weight-of-surveillance-and-the-fracturing-of-care/>.
 29. A thorough and comparative listing of methods is at Involve, People & Participation: How to put citizens at the heart of decision-making, (London: Involve, 2005), http://www.sharedpractice.org.uk/Downloads/involve_publication.pdf. See also Gene Rowe and Lynn J. Frewer, "Public Participation Methods: A Framework for Evaluation," *Science, Technology, & Human Values* 25 (2000): https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1831468.
 30. For case studies of participatory methods being used in AI, see Data Justice Lab, *Advancing civic participation in algorithmic decision-making: A guidebook for the public sector*, (Cardiff: Data Justice Lab, 2021), https://datajusticelab.org/wp-content/uploads/2021/06/PublicSectorToolkit_english.pdf; Camilla d’ Angelo, et al., *The use of public engagement for technological innovation: Literature review and case studies* (London: Department for Business, Energy & Industrial Strategy, 2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/955880/use-of-public-engagement-for-technological-innovation.pdf.

Organizations implementing public participation can work with affected communities to select the ideal participatory mechanism for shared goals, with an emphasis on accessibility and inclusion.

There are tradeoffs of scale between intensive processes that involve fewer people and less-intensive processes that can engage more people. Generally, more intensive processes are more successful in shaping outcomes, but they can also be exclusionary. To resolve this tension, experts advise making representatives responsible to their broader constituencies, combining various participatory mechanisms, and using technology to engage in large-group deliberative processes.³¹

7: Track, measure, and assess public participation and its impact.

To keep AI adopters accountable to the public, and to refine the ongoing development of participatory processes, **it is important to evaluate the success of any given public participation design.**³² The public should play a role in defining the metrics, then evaluating the process according to those metrics. This will ensure that ongoing and future public participation models are constantly evolving and improving.

8: Mandate public participation with “hard law” requirements with concrete enforcement mechanisms.

It is not enough for public participation to be advisory or recommended—or delivered by the benevolence of corporate entities. Rather, **hard law requirements mandating public participation and creating enforceable rights to participation are foundational** to ensuring that decision-makers take participatory requirements seriously and that the public has real influence.³³ Hard law requirements ensure continuity within organizations over time, help build institutional norms around participation, and increase trust with affected communities. An ideal statute for public participation in AI would incorporate the preceding guidelines by

- mandating public participation;
- defining meaningful participation and the goals of participation;
- describing the public’s role at various stages of the AI life cycle;
- requiring two-way forms of deliberation at specific stages;
- directing culturally appropriate outreach to affected communities;
- identifying obligations to increase access for marginalized communities;
- committing funds for public participation and specialized support on technological issues; and
- setting forth enforcement mechanisms to ensure compliance with public participation requirements.

31. Thomas C. Beierle and Jerry Cayford, *Democracy in Practice: Public Participation in Environmental Decisions* (Washington: Resources for the Future 2002).

32. John M. Bryson, et al., “Designing Public Participation Processes,” *Public Administration Review* 73 (January/February 2013): 23–34, <https://ojs.unbc.ca/index.php/design/article/view/1265/1081>.

33. Audrey McFarlane, “When Inclusion Leads to Exclusion: The Uncharted Terrain of Community Participation in Economic Development,” *Brooklyn Law Review* 66 (2001): 861–931.

CONCLUSION

Embedding public participation in AI governance is no panacea for keeping AI safe—that responsibility falls on the shoulders of the entities deploying AI and the lawmakers and agencies that regulate its use. Nevertheless, well-designed public participation can improve outcomes where science and technology implicate social, ethical, cultural, and political values. Public participation is difficult to do well, and it does not happen without purposeful and inclusive design involving a diverse range of stakeholders. Fortunately, we have a wealth of experience identifying the core principles for meaningful public participation. The stakes are high.

***“Our society is stronger
when people have the democratic right and
practical means to influence the AI systems
shaping their lives.”***

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