

# Introduction

## *Democracy in the Wild*

Imagine a gathering under a tree, a couple dozen people sharing a picnic in a park. The day begins clear, good for cooking and playing and lying on blankets. Food and games are out, splayed around the tree and the lawn around it. As the afternoon goes on, clouds form and gather overhead, but few of the picnickers notice until the first raindrops fall. Murmurs begin to spread, bodies agitate. The murmurs all amount to some version of the same question: *What should we do?*

A choreography of rough consensus is underway. The networks of friends at the picnic activate, checking in with each other using words and how they carry their bodies. Some hold themselves high, determined to wait out the weather, while others look around skittishly, assessing the quantity of rain and the perceptions of others. Friends cross-pollinate information across the clusters of family. Within families, members seem to look toward one or two of them—an elder who speaks only the old language or a volatile kid or a guest, depending on the family—to make the call that the rest will follow. A ranger from the park service comes by, an agent of the regional government, to offer a warning about the perils of being under a tree during a thunderstorm.

The air begins to smell of petrichor as moisture fills the pores of stones and dirt, releasing as aerosols the oils they have been holding inside them. By then, most of the birds and squirrels nearby already know what is coming from the changing barometric pressure, and they are back in their nests. The tree alters the chemicals oozing from its roots, which the mycelial networks underneath transmit across that section of the park. Worms weaving among them feel the moisture and move upward toward the surface, into the rain that others are trying to escape.

Enough families leave that even the picnickers most determined to stay no longer see the point. The thick air and rush of creatures have enveloped what is left of the human activity. Those remaining people now seem isolated and wandering, no longer cohering as a single event like they had just a few minutes earlier. The critical mass that made the place a picnic had gone.

By then word has spread about a group chat. There, they can share photos and find their lost things that others might have hastily gathered up. What was before, at the picnic, an uneven topology of social location and circumstance now becomes an instantaneous ledger of opinion. One phone after another logs in there, lighting up with chatter about whether the picnic should have ended. But this time the youngest people do not have the equipment to add their voices; the eldest tend to have trouble joining. Lightning never came, and before long the rain is gone.

*Go back?*

*We came all that way to get there!*

*Nah, already packed up.*

In the chat, everyone is a speech bubble. There are some side chats among friends, but the main group flattens the textured structures of relationship. Disagreements fly by, but nobody is sure what would be the criteria for a decision or how to signal commitment. The chatter ricochets back and forth. Some who were quiet under the tree feel more free to speak up here. One person complains especially crudely, only to vanish from the chat—removed by the person who started it, whom the software regards as its admin. Factions form and dig in their positions. Notifications announcing messages continue to flash on the remaining people's phones, until the futility of the debate slows them to an occasional emoji, and then some photos taken earlier, and then no more.

What happened to the picnic when it went online? This is a version of the questions many of us find ourselves asking over and over, as one scene of social life after another migrates to digital networks—our workplaces and markets, our classes and clubs, our money and family, our religion and politics. The answers, as above, are never straightforward. But they are increasingly consequential.

This is a book about the politics of everyday life, and everyday online life in particular—among the internet-borne social spaces where people see each other and interact through digital tools. I contend that the most quotidian kinds of online politics, such as those in the tale above, affect the flows of power at the largest scales. The ways people can and cannot collectively self-govern in daily online life, furthermore, have been constrained in dominant social networks. I will argue that the constraints on governance in online spaces have contributed to the peril of democratic politics in general. It is not enough to merely defend existing governmental institutions; healthy democracy depends on enabling creative new forms of self-governance, especially on networks.

Several proposals flow from those claims. One is the need for online communities themselves to self-consciously cultivate democratic practices. These practices can serve as the basis for a social-media design paradigm that invites diverse kinds of community governance to emerge and flourish. But community-scale democracy will remain only marginal within antidemocratic infrastructures. A further paradigm is therefore necessary for the policies encoded in law and technical systems that organize online life—self-governance, rather than top-down authority, as the basis for problem-solving. Such a paradigm would make networks home to new jurisdictions—enabled by but not always reducible to the jurisdictions of geographical territories.

Much of this book dwells in interactions of human politics and technological systems. But, as above, the more-than-human world envelops it all, providing the stage and the stakes: a planet waiting to see whether we can govern our way out of self-destruction, deciding whether to maintain the conditions necessary for human civilization.

Is there democracy in the wild?<sup>1</sup> Creatures hurtling through space on a fragile world can expect no rights or powers of decision from physics and biology. A government's claim to rule means little in a high-mountain wilderness or in a neighborhood whose residents have made themselves ungovernable to survive against a hostile police force. Yet *governance* and its cognates are names we use for doing what all life-forms must: orchestrating our perceptions and reactions so as to have a chance at thriving in our surroundings. Consider it simply the intersection of power and cooperation—an intersection hardly unique to us.<sup>2</sup>

Any precise meaning of *self-governance* is necessarily contextual, depending on who is involved and what kinds of say they seek. Likewise, I claim no fixed definition for *democracy*. I understand it as always a horizon, a longing for power shared equitably among participants, a destination that moves depending on where one stands.<sup>3</sup> An orchestra permits hierarchies intolerable to a punk band, but the people in each may still see themselves as living toward democracy. If democracy is the horizon, self-governance is a plausible practice for moving in that direction. *Governable spaces*, then, are where democratic self-governance can happen.

The story of the picnic included different kinds of spaces and, among them, missed opportunities. What if other picnickers had heard those only comfortable speaking up online? What if the group chat had included tools for steering debate into decision? What if the picnickers had been more skilled at making decisions online because they were used to having and using real power?

The online networks that are the subject of this book are a kind of wilderness. They are evolving biomes, host to a polyphony of people and machines. The networks are not fully apart from the governments that claim to rule the world, but not entirely subject to them either. What happens online is terrible and wonderful;

I love my favorite online haunts. If I criticize our networks as they are, it is because I see glimpses of the governable spaces they could become. Our networks are spaces we have still only begun to co-create and self-govern and thus to make our own.

## DEMOCRATIC EROSION

It is by now a truism that democracy is in decline around the world. Political scientists have diagnosed the “erosion” or “deconsolidation” of democratic institutions among governments, as well as in global opinion polls, which exhibit collapsing affection for democratic ideals.<sup>4</sup> Countries such as the United States, the world’s longest-running constitutional democracy, and India, the world’s largest, have voted into power regimes with autocratic tendencies. Other countries of diverse kinds, from Hungary to the Philippines, have both led and followed. According to one analysis, between 2011 and 2021, “toxic polarization” dividing political factions spread from five countries to thirty-two; the number of countries with worsening freedom of expression went from five to thirty-five; and the share of the world’s population living in autocracies increased from 49 percent to 70 percent.<sup>5</sup> The situation means trouble for those who regard democratic government as an intrinsic good, to be sure. It also bears other dangers, threatening a self-reinforcing spiral of authoritarianism, economic exploitation, and environmental destruction, especially as leaders seem to regard protecting ecological and social health as an unacceptable constraint on their mandates to achieve national greatness.<sup>6</sup>

Blame for democratic erosion falls in many directions, from intersecting inequalities and climate-induced migration to widespread corruption and insufficiently civic-minded elites.<sup>7</sup> But it is hard to avoid laying blame on the absorbing, distracting, glowing presence that has reconfigured public and private life for so many of us in recent decades: online social media. Scholars and journalists have argued that social networks have worsened polarization, provided mouthpieces for authoritarians, enabled violent extremists to organize, and undermined trust in institutions.<sup>8</sup> Additionally, mounting evidence suggests that users perceive online platforms themselves as unaccountable polities, resulting from experiences of arbitrary rule enforcement, a lack of due process, and an absence of sensitivity to context.<sup>9</sup> The diagnoses, in turn, produce calls for a response. Proposals typically take the form of fresh impositions of consolidated power, whether through governmental regulation of platform companies, takeovers by billionaires aspiring to be saviors, or the fiat of platform companies themselves.<sup>10</sup>

Meanwhile, social-media-savvy protest movements have set out to reinvent democracy with viral mobilizations, denouncing old regimes and experimenting with self-governance in the streets. The year 2011 saw a wave of uprisings spread from the Middle East, across Europe, to Wall Street, and then around the world again. Protesters often eschewed representative democracy and modeled forms more responsive, creative, and direct. But in the years since, hardly any gains from

that period have stuck, and in most cases the authoritarians have only tightened their grip. Civil wars with their roots in those protests—in Libya, Syria, and Yemen—are still smoldering. Movements have succeeded in using online tools to spread their messages and cause fleeting disruptions, but those achievements have not translated into lasting democratic blocs that have shifted power in meaningful ways.<sup>11</sup>

Even if the Internet is neither a complete nor satisfying explanation for eroding democratic norms, there is reason enough to believe that aspects of networked life have contributed to aspects of democratic erosion. The growing ubiquity of online networks seems to have roughly preceded the rise of the new aspiring dictators. Those figures, more than trying to restrict and censor social networks, have embraced them as their own. Social algorithms often privilege the kinds of polarizing, abusive messages that undermine civil discourse. And rising levels of app-fueled anxiety might leave people more susceptible to promises of autocratic certainty.

This book will add one more accusation to the pile: the design of online social spaces has contributed to the atrophy of everyday democratic skills. The diagnosis also bears remedies. More than other explanations of democratic erosion, this account suggests that the future of democracy can begin at the level of ordinary community, wherever we find ourselves together, where each of us has the chance to make a difference.

#### EVERYDAY DEMOCRACY

To measure the situation of the digital, consider the analog. While I was beginning the research that led to this book, I was receiving regular updates from my mother on her neighborhood garden club. The club has survived from the heyday of suburban housewives—which my mother, as a retired government employee, never was. But the club elected her president. She described to me the debates, the subtexts, the meetings, and her stratagems for facilitating the process.

The club's bylaws occupy eight pages in an annually printed, thirty-eight-page handbook. It also has chapters on hospitality and flower arranging. The bylaws' structure includes articles, sections, and enumerated subsections. As a legal document governing a nonprofit organization, the language is formal, with lots of "shall" statements and capitalized terms. The club members don't normally talk this way with each other. But when they have decisions to make or conflicts among them, they can flip to those pages and find a path forward. The bylaws help make the club a governable space.

As she talked about the club, my mind drifted to my own recent encounters with governance: running a five-hundred-person email discussion group, lurking among open-source software communities, and documenting hashtag protest movements. As an admin in online spaces, I struggled with how to adopt basic democratic practices like those of the garden club. The interfaces I had to navigate in those spaces provided no guidance. There was no functionality for elections, no

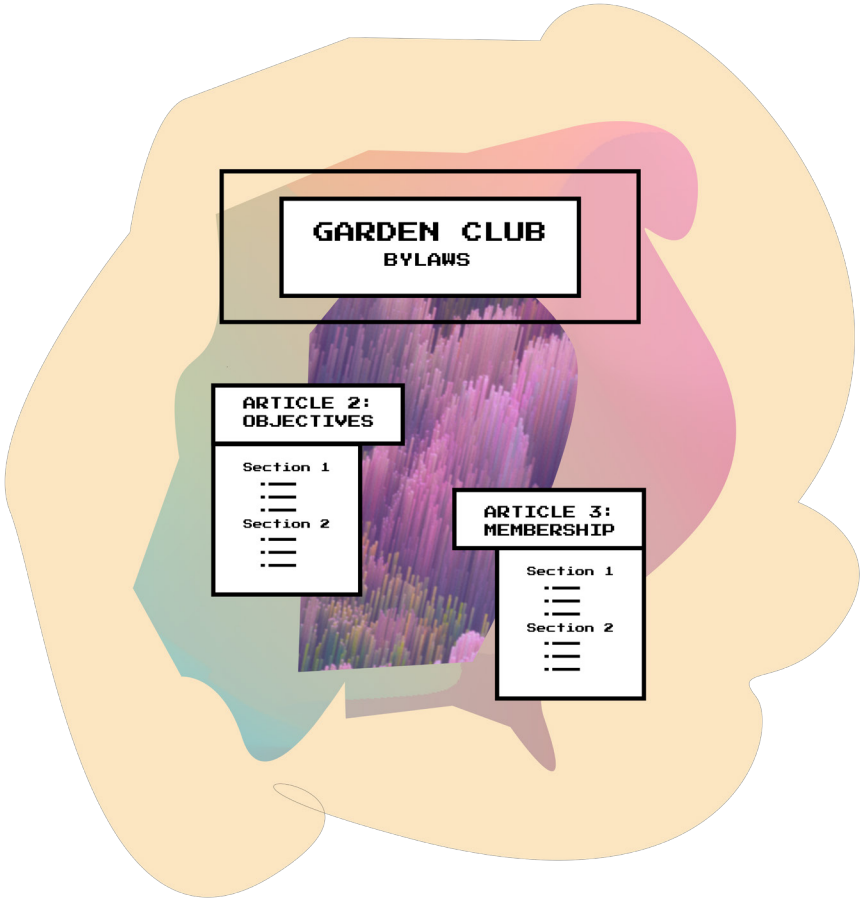


FIGURE 1.

mechanisms for dispute resolution, no template for simple bylaws. I could patch together a vote or summon a jury on my own, sure, but what would count as a decision? On what basis could I establish ground rules, and what if I didn't want to implement the outcome? Ultimately, power rested with me and whoever else's accounts had admin privileges. What would it mean for other users to hold us admins accountable? Few online groups I had been part of could hold a candle to the simple and effective set of rules that had governed the garden club since the 1960s, rules unremarkable among countless similar organizations with a vast range of purposes. Few online groups will last so long.

My mother's garden club inherits a legacy of second-nature civic association that impressed the French aristocrat Alexis de Tocqueville when he toured the United States in 1831. In contrast to late-monarchical Europe at the time, he was taken with how fervently Americans seemed to form organizations, for all kinds of

interests and purposes. It struck him that the lessons learned in community-scale groupings had something to do with the practice of the representative government, still nearly unique to the United States at the time: "The greater is the multiplicity of small affairs, the more do men, even without knowing it, acquire facility in prosecuting great undertakings in common. Civil associations, therefore, facilitate political association: but, on the other hand, political association singularly strengthens and improves associations for civil purposes."<sup>12</sup>

Meanwhile, he surmised that when people do not have experience in self-governing associations, they fear the risks of it and doubt their capacity to participate. Democratic muscles need exercise: "When [people] are as yet but little versed in the art of association, and are unacquainted with its principal rules, they are afraid, when first they combine in this manner, of buying their experience dear. They therefore prefer depriving themselves of a powerful instrument of success to running the risks which attend the use of it."

Tocqueville anticipated thinkers such as John Dewey and Paulo Freire in articulating the interrelation of politics and education. Democratic society works only if people are educated for it, and education cannot be democratic without involving direct political engagement. "Political associations may . . . be considered as large free schools, where all the members of the community go to learn the general theory of association."

Tocqueville wrote passages like these with particular sensitivity to the anxieties of his fellow European elites, who were in the habit of suppressing popular associations for the sake of social stability. For the aristocrats' benefit, Tocqueville took particular pains to explain how widespread association would actually serve the social order rather than undermine it. The more invested people are in their own endeavors, he argued, the more stake they have in the order on which it rests: "[If you] perceive that the Americans are on every side unceasingly engaged in the execution of important and difficult plans, which the slightest revolution would throw into confusion, you will readily comprehend why people so well employed are by no means tempted to perturb the State, nor to destroy that public tranquillity by which they all profit."

Perhaps the same is true of online mobs, scammers, and trolls. Would they too have less incentive to disrupt if they had more stake, if they had their own mini-democracies to care for?

The bylaws of the garden club and the associations Tocqueville admired would not translate straightforwardly online. Too much is different in online spaces: the ease of joining and leaving, the cultural and geographic diversity, the speed, the anonymity, the metrics of reputation, and on and on. And yet his basic insight has remained salient: a synchrony binds the smaller and larger scales of political life. Findings that correlate democratic government and everyday civic associations persist long after Tocqueville's time, across diverse contexts.<sup>13</sup> Causal "spillover effects" indicate that when people participate in local democratic

activities, they are more likely to involve themselves in the affairs of government.<sup>14</sup> Among social movements, practicing democracy at small scales has often been a strategy for building democratic power at the highest levels. For instance, the modern cooperative movement first took hold in England among Chartists, factory workers demanding the right to vote in elections. To exercise and prove their democratic skills, they formed cooperative stores where every customer had a vote. The English cooperators became allies to US slavery abolitionists like Frederick Douglass, and cooperatives in turn became important features of Black liberation movements from civil rights to Black Lives Matter. Nineteenth-century Populist organizers in the American West saw local cooperatives and other associations as the best defense against the appeal of demagogues to exploited farmers.<sup>15</sup> More recently, sociologist Erik Olin Wright understood participatory associations as “real utopias” that contribute to a social change through “interstitial transformation.”<sup>16</sup> These have been the offline governable spaces that help make democratic politics possible.

The political significance of ordinary life need not stem from activities that are distinctly civic or economic. What about walking to the train station, watering a community garden, or teaching a child to repair a toy? I draw also from theorists of everyday life since Tocqueville who have found politics in the kinds of activities that seem farthest from it, that dominant cultures render as officially insignificant.<sup>17</sup> Michel de Certeau and Henri Lefebvre identified the everyday with tasks of domesticity and social care; the everyday I focus on looks more like busy fingers and eyes tracking screens or moving through a physical world while preoccupied with what took place on a server elsewhere. In such moments lie opportunities for critique and meaning-making, resistance and world-building. I follow Anne Norton’s insistence that “sovereignty is a commonplace” held in our bodies and communities, not an “exception” from above as prominent political theorists have claimed.<sup>18</sup> Before twentieth-century feminists said it better, Tocqueville taught political thinkers to notice that the personal, especially the interpersonal, is political.

Tocqueville’s perceptions, however, lead to places I cannot follow. He failed to see the genuinely democratic possibilities among people facing European colonization from Africa to the Americas—advocating a crusade of democracy through conquest rather than against it.<sup>19</sup> For this reason and more, in these pages I rely on another lineage of political thought, which took as its starting point anticolonialism and anticapitalism, then expanded later into ecological feminism. The lineage begins with the Trinidadian writer C. L. R. James, then passes to the Chinese-American organizer and philosopher Grace Lee Boggs, James’s longtime collaborator, and then to adrienne maree brown, a disciple of Boggs in Detroit who has become a pivotal voice in present-day activism surrounding climate justice, Black liberation, queer identities, and science fiction. James, Boggs, and brown



share with Tocqueville that critical concern about how the texture of the everyday might contribute to the transformation of the world, but they see openings that he did not.

James wrote a definitive history of Haiti's independence struggle, *The Black Jacobins*, and he played a guiding role in decolonizing Africa. Among his writings is a short essay from the mid-1950s, "Every Cook Can Govern," which imagines labor unions reviving ancient Greek direct democracy by appointing officeholders at random from the community.<sup>20</sup> What would our politics look like, he asks, if we really believed that each of us has the right and ability to self-govern? What kinds of people could we cultivate if we held that trust in each other?

These are questions Boggs explored deeply in the context of labor organizing among Detroit factory workers. Later in her life, after parting ways with James, she organized a youth summer camp, became fascinated with new decentralized technologies, and studied systems of self-organizing in biology. She mentored several generations of activists, teaching them to ask questions and hold faith in people to discover their own answers when given the chance.<sup>21</sup> And brown has continued those explorations through her practice as a social-movement facilitator and writer, grounding the work of struggle and social change in the experience of friends in a group chat, in bodily pleasures, in theories about fungi and fractals.<sup>22</sup> She notices how communities, like fungi, build subterranean connections through networks; like fractals, people's ordinary interactions with loved ones and neighbors shape the possibilities of politics at the largest scales. The faith in people's capacity to self-govern that animated James's anticolonialism and Boggs's devotion to the possibilities for Detroit becomes, for brown, an antidote to the mayhem of very-online life, helping her douse such flame wars as "cancel culture" and the backlash to "defund the police." Together, James, Boggs, and brown see transformative power in even intimate governable spaces.

These three are not usually considered media scholars, although I have learned a lot by reading them that way. Throughout this book I draw them into a shared conversation about making an inclusive, accountable, networked democracy. I do so not to detract from the urgency and centrality of any specific struggle. Building governable online spaces could enable more powerful, creative movements, but I do not mean to prioritize that strategy over others. I hope to invite a conversation that follows Anibal Quijano's understanding of "totality," a search for holistic, cross-cultural knowledge that welcomes difference and refuses domination.<sup>23</sup> The crisis of self-governance is in many respects a shared crisis around the world, even as it appears to us through many different histories, experiences, and disguises. The rot seeps everywhere, but it does not everywhere smell alike.

Life can flourish on rotting logs, as brown's fungi remind us. If nation-state democracy is rotting, then we might allow ourselves to imagine its erosion not solely as a loss. Rot is metabolism, an act of digestion into something else. If

democracy is not a static organism so much as an evolving symbiosis, then we can allow ourselves to search for more of the possible feedback loops that we could sense and act on.<sup>24</sup> The subject at hand is sensual, even while it is a matter of technology.

## ARTIFACTS AND POLITICS

There is no more notorious error in the study of media technologies than determinism—interpreting some device as single-handedly steering social outcomes and thereby denying the role of people in shaping their own cultures and power structures. I admit at the outset to edging around that theoretical sinkhole. This book rests on a claim that the dominant design patterns of social-media technologies have constrained social and political possibilities, including the cultural options and possible power structures. Democratic self-governance is far harder than it needs to be in online spaces, and autocratic flows of power arise easily—not so much because of the people as because of the tools and the economies that reinforce them. Different tool designs can make self-governance easier to practice and improve. To borrow the canonical phrasing of Langdon Winner, who tangled with determinism too, these artifacts have politics.<sup>25</sup>

Tarleton Gillespie ends his field-defining book on platform governance, *Custodians of the Internet*, with a proposal that ordinary users should have greater involvement in the rule of online space and that platform companies must “share the tools to govern collectively.”<sup>26</sup> Probing that proposal and then attempting to make good on it turn out to be far easier said than done. Technological inertia, combined with allied forces in business models and culture, has produced counter-democratic tools. Collective governance runs contrary to how online spaces have typically taught us to behave in them. Gillespie’s proposal therefore requires amending. To “share the tools” as the tools are will do little for governing collectively. The tools themselves must be different for governable spaces to emerge.

That is where I slip out of deterministic trouble. It is through the practice of intentional self-governing that people can begin rethinking and remaking their tools. Tools constrain politics, but people can fashion better tools with politics and business models that do not take corporate control as the starting point. I will follow, for instance, Philip E. Agre’s call, at the enigmatic end of his career as an engineer and humanist, for the cultivation of “political skills.” Agre stressed that a healthier politics should begin and end with human practices, even while rethinking the technologies in between. The task is well captured in Ruha Benjamin’s inversion of an old Facebook slogan: “Move slower and empower people.”<sup>27</sup> As in the Slow Food movement, *slow* is less a matter of velocity than of making time to observe and attend to the relationships at play.

Andreas Hepp’s formulation of “deep mediatization” points a further way out of determinism. Under this condition, Hepp writes, “all elements of our social world

are intricately related to digital media and their underlying infrastructures.”<sup>28</sup> If society has become so thoroughly mediated, how could we expect democracy to emerge in not-especially-democratic media? Hepp shows how algorithms and data aggregation do not just communicate but reshape society. Of similar importance, I argue, are the interfaces and administrative features of online social spaces, the sites that manifest who has power over whom. These user experiences organize what Hepp identifies as the “figurations” of mediated life: the complexes of institutions and their participants engaged in “embodied doing.” Governance occurs through figurations, too. The later chapters of this book move toward refiguration, or reorganizing certain figurations in more democratic directions. I attempt to set in motion a sequence of what Hepp calls “recursive transformation.”<sup>29</sup> This involves not a single intervention but interventions across mediated life. With alternating social, technical, and economic proposals, I outline a cyclical theory of change, turning from multiple directions.

As the argument progresses, it should become clear that technical solutions alone are inadequate—and impossible—even for problems that people experience most directly through technical interfaces. Those interfaces come to us not by their own accord but through the deployments of capital and power that orchestrate their design.

I will not stop at political economy, however. Social structures and media systems depend on the life-forms that create them, the biological and creative forces that call into question any attempt to take systematizing too far. I follow Sarah Kember and Joanna Zylinska’s *Life after New Media* in their emphasis on *life*. They cast media studies as constituting a “theory of life,” involving “the interlocking of technical and biological processes of mediation.” In these terms, we can allow ourselves to think about fungi as media, to take seriously the habits and rituals involved in making an online place feel like home. Mediation constitutes a cyborg organism. On that assumption, we can more fully exit the dichotomy of user and machine, of determiner and determined. The possibility of self-governance rests on recursion, again, between biology and technology, the self and the network, the creative and the critical. Kember and Zylinska introduce themselves as artists as well as scholars, modeling an interplay of analysis and intervention—a “creative mediation” that they summarize as simply “doing media studies.”<sup>30</sup> Doing-through-study is what I aspire to here.

I have been aided in that doing by being holder of a key to the Media Archaeology Lab, located in a basement half a block from my office at the University of Colorado Boulder.<sup>31</sup> The lab houses multitudes of functioning and supposedly obsolete computers, games, mobile devices, and technical manuals, available for use in study and artist residencies. This feat of maintenance has reminded me to test my ideas in living relationship with machines, playing with them and relying on them. Media archaeology serves as a helpful frame for the orientation to history here: the past is of interest mainly to the extent that it still lurks among

us in the present, including those parts of the present that declare themselves as innovation. But the Media Archaeology Lab is no mere curiosity shop; in my sessions there I work alongside artists and hackers composing new works with the machines that have survived from past product cycles. From the past, they carry possible futures. The real usefulness in seeing the world as mediation is the extent to which it becomes an invitation for recasting molds of meaning in software code, for performing social experiences that code could never capture.

## DEMOCRACY AS A DESIGN PRACTICE

Zizi Papacharissi has recently wondered, “What if democracy is not what we are after but the path to something else?”<sup>32</sup> It is a question the eminent communication scholar posed not only to herself and her readers but to one hundred interview subjects around the world. In many of those conversations, her informants did not seem to have the words to describe either the problem or the path forward. They could agree only on the sham in their governments’ claims to be democracies. Nobody expressed enthusiasm for the people representing them. “We have turned democracy into a rigid routine,” Papacharissi concludes.<sup>33</sup>

Perhaps leaning so hard as I have on *democracy* will only cause it to snap. Perhaps we need another word; perhaps the word can be refurbished and put to better use. Either way, technology is sure to be drafted in the cause. A further fruit of Langdon Winner’s reflections on artifacts and politics is an observation about the amnesia that surrounds incidents of innovation: “In our times people are often willing to make drastic changes in the way they live to accord with technological innovation at the same time they would resist similar kinds of changes justified on political grounds.”<sup>34</sup>

Technologies can open political doors that ordinary politics may not open alone. We see this pattern in governments’ willingness to let ridesharing apps categorically violate labor law or for nuclear weapons to justify consolidating the authority of a chief executive.<sup>35</sup> That’s the danger in determinism: the excuse that technology left no other choice. But in a world where the range of political possibilities can seem close to nil, this amnesia in the face of gizmos occasions a weird and perhaps necessary hope.

I contend several technological ruptures are underway that all present opportunities for democracy or whatever the future needs to call it. These ruptures represent contested spaces, not salvific solutions. They present as many dangers to democratic politics as opportunities, and *how* they proceed matters at least as much as *whether*.

One rupture involves initiatives among territorial governments that introduce forms of citizen voice, often with new media in hand. These range from the advent of participatory budgeting processes in Porto Alegre, Brazil, in 1989 to the digital deliberation platforms adopted more recently in places like the city of Barcelona and the national government of Taiwan. The experiments include

wiki-style efforts to crowdsource constitutions, assemblies of randomly selected citizens drafting policy proposals, and the use of artificial intelligence to identify clusters of participant opinion independent of political parties. Even under Chinese authoritarianism, such forms of consultation have flourished. Efforts to institutionalize restorative justice or practice transformative justice prefigure societies less reliant on police and incarceration. In certain times and places there seems to be at least partial openness among governments to explore more information-rich feedback loops than periodic elections. But in most cases the innovations perform merely advisory roles, granting citizens little in the way of new powers that are meaningfully binding. As such, these forays also disclose the resistance of today's territorial governments to departing from what Papacharissi calls their "rigid routine."<sup>36</sup>

Another rupture is the advent of what goes by the names of blockchain, Web3, or simply crypto—the circus of innovations and crises that have arisen since the release of the Bitcoin cryptocurrency in 2009. Crypto-based communities, organizations, and protocols have implemented novel decision-making procedures and organizational structures on and off the immutable ledgers of their blockchains. The reliance on open-source software means that when something works, it can spread rapidly to other communities. Regardless of any failures to fulfill what advocates have promised for it, I argue that this rupture is important because of the almost surgical precision with which crypto's distributed ledgers differ in their power structures from earlier online systems hosted on central servers. Much in the realm of crypto is decidedly antidemocratic and unabashedly plutocratic, but its rise—and even the appalling hype of its speculative cycles—presents an opportunity for reimagining networks along more democratic lines.<sup>37</sup>

The quest for governable spaces is a chance to design. Democratic design does not come easily to many of us, however. Too often we regard democracy as either a condition fixed long ago in a constitution or indefinitely out of reach, depending on how we experience the governments under which we live. But to design digital spaces as governable spaces means that we might have the chance to define and redefine democratic practice far more frequently than the drafting of a constitution every few centuries. Designing the media of governance on social networks, for instance, could become as valuable a skill as jockeying for power.

My approach to design owes homage to several sources. One is Arturo Escobar's framework of "designs for the pluriverse," which insists that no single design can serve all people and cultures and that we should regard design as an exercise in historical consciousness and multiplicity. Escobar also sees design through a decolonizing lens, as a form of resistance to being designed from elsewhere. The framework of "design justice" further insists that design must occur through rigorous accountability to the people whose lives it will shape; it emerged out of the Allied Media Projects network in Detroit, among disciples of Grace Lee Boggs, and has been crystallized in the work of Sasha Costanza-Chock.<sup>38</sup> Part of what governable spaces must enable is the ability to craft and practice that accountability.

Another approach to designing deeper accountability derives from the cybernetic school, which views human, ecological, and technical systems through the structures of their information flows and feedback loops. Salvador Allende's attempt to create a governable computer system in Chile, Project Cybersyn, sought to organize these flows at the scale of a country. I draw also from scholarship on mechanism design and common-pool resources, particularly in the vein of Elinor Ostrom, a literature that complements democratic ideals with insights from economics and game theory. Finally, with Tocqueville, I regard democratic design as, in important respects, a matter of spiritual imagination, a mediation between transcendent aims and immanent conditions.<sup>39</sup> The invitation to design comes with many more invitations wrapped within it.

Together, these lines of thinking stress that design does not occur in a vacuum or in the head of a solitary designer. It emerges through social and economic life, which shapes and constrains it. To change how we design means also changing aspects of the social order. Enabling democratic design in online life, I will argue, will involve redirecting the flows of finance and regulation. To change these flows is to alter the conditions of design. I think we can build what Ivan Illich called "tools for conviviality"—tools that support "autonomous and creative intercourse among persons, and the intercourse of persons with their environment." Convivial tools are ones that invite us to be creative and responsible, rather than deferring responsibility to someone else. Illich warns, however, that achieving conviviality is possible "only if we learn to invert the present deep structure of tools."<sup>40</sup>

I should acknowledge some contexts of my own design and the design of this book. I have thought and written in ongoing conversation with hundreds of collaborators in the Metagovernance Project, a community of research and practice that I have had the opportunity to help lead.<sup>41</sup> Through Metagov, I have found co-authors, co-investigators, co-developers, and co-critics, all of whom share a commitment to advancing the possibilities of self-governance in online spaces. One way of phrasing the purpose of this book is to argue for the value of what they are all up to—what we are up to together.

I have also come to see the need to acknowledge the sources of my own at-times outsized faith that human beings are capable of democracy in the first place. There are several. My participation in the tradition of Catholic social teaching, for instance, has taught me to regard self-governance at proper scales as a right and obligation of human dignity. I am moved, for instance, by the deceptively modest aspiration of the Catholic Worker movement to form "a world where it is easier to be good." For much of the past decade, also, I have worked closely with and learned from the founders of a new generation of cooperative businesses, practicing economic democracy in the tech industry and elsewhere.<sup>42</sup> But the experiences that come to mind most frequently occurred at the school I attended as a teenager, a public high school whose founders insisted on making it unusually democratic. There I took part in setting the school's rules at the weekly "town meetings" and had

the opportunity to lead the design of a new admission policy after a court struck down an earlier one. Knowing well my own lack of formal preparation for these tasks, I became convinced that if people are given a real chance to self-govern, with the guidance and infrastructures they need to do so, they will rise to the occasion. The years since have left me less optimistic that self-governance is a clean and easy answer to any question, but my hope in people's ability to surprise themselves with it remains.

The persistence of those early experiences for me, decades later, testifies to the power of designing governance experiences. When people participate in healthy democracy firsthand, it can leave a lifelong impression that such a thing is possible, even if actual manifestations of it remain rare. Those experiences are why Tocqueville's associations and brown's fractals ring so true to me. To design the governance of even minute comings-together is to shape what people feel they are capable of. Architects, lawyers, and decorators have long ordered public spaces for self-governance through their designs. The same thing can happen in the design of governable spaces online.

## HORIZONS AND LIMITATIONS

The chapters that follow undertake a journey from an archaeology of pre-internet software to a call for rethinking the governance of global networks. In the process, I will argue for reorienting habits around online spaces from deskilling to political skills, from server control to community control, from paternalism to governability. Toward that end, I offer a sequence of concepts that constitute a vocabulary for online democracy.

I begin with a diagnosis of *implicit feudalism*, the dominant design pattern for online spaces, in which all power derives from founders and admins, and most users lack opportunities for direct, instrumental *effective voice*. The second chapter makes a case for the far-reaching consequences of this kind of design and its affinity with the ideology of *homesteading*, which extends the trajectory of American colonization into the digital economy. There, I contend that the structure of daily online life has prefigured the rise of authoritarian urges at the level of national governments. Democratic erosion coincides with shortage of democratic practice when social life migrates online.

The rest of the book explores the possibilities of designing technologies as *democratic mediums*. This begins with case studies in two very different attempts to design a participatory society without violence at its foundation: the transformative justice movement working toward police abolition and the "BUIDL" culture surrounding the Ethereum blockchain. From there, I call for designing toward *governable stacks* at the level of communities. Stack design can draw at once from a new kind of software paradigm, *modular politics*, and an approach to learning from the breadth of human experience, *governance archaeology*. Finally, I consider



how *governable spaces* might be the basis of a fresh orientation to policymaking in various contexts.

Throughout, I present brief profiles of projects that have come out of the Media Economies Design Lab, which I lead at the University of Colorado Boulder. These are proofs of concept more than polished products. Through them I have sought to hold my ideas accountable to communities of collaborators and to code that runs. Consider them tangible gestures toward how the ideas here can come to life in practice.

It should be evident by now that this book comes with limitations. I have written it primarily with fellow researchers and other obsessives in mind, not as an introduction to online governance or a how-to manual. Other publications, including others of mine, will be more accessible for some readers. Those who conflate governance with governments will come away disappointed, as this is a book about spaces that often do not map cleanly on to territorial politics. I also hold in suspension a matter that concerns many scholars of governance: the relative efficacy of various types of governing regimes, democratic or otherwise. Any kind of governance among humans will involve contradictions, crises, and failures, and all the more so when governance takes new forms. I defer questions of efficacy—and, further, I reject their promises as deceptive—until the spaces at hand have greater capacity to define their own goals against which efficacy might be measured. Therefore my pursuit of democracy is not so much analytically utilitarian as plainly *a priori*—how can we settle for anything else? This book dwells largely in the negative space of neglect, of what has not been adequately tried or even imagined.

Despite presenting an argument optimistic for participatory politics, I am sympathetic to recent critics of widespread participation as burdensome, elitist, or conducive to uninformed governance.<sup>43</sup> A world of many governable spaces online could present an overwhelming burden to a user simply trying to access multiple services. Most users will lack a sophisticated grasp of the platforms they inhabit, if only because they use more than they have time to adequately understand. The self-governance I call for must be tailored to the context—sometimes highly participatory, other times relying more on trusteeship or representation, jury-like sortition or even market-based prediction. At the end, I will gesture toward the need for governance designs sensitive to economies of attention. Governable spaces must calibrate what they expect of people to a condition of *metagovernance*, of traversing multiple, plural governance environments in a way that is sustainable, tolerable, and comprehensible. What doing so requires, at this writing, I can only guess.

In between these shortcomings, I hope to provoke a more widespread recognition that the design of everyday self-governance in online spaces matters. But much of what I argue for remains, by necessity, untested supposition. The rehearsal stage for online self-governance has yet to be built. I hope to motivate its construction.