

6 Care of the Possible

Engaging in design experiments is a way to contribute to diverse civic imaginaries and practices. As a practice of inquiry, these events help us collaboratively explore and proffer ideas about how we might live together differently. Such experimentation is part of the work of democracy; it is one way we keep democratic conditions vibrant. But engaging in these design experiments is more than some form of civic duty, like voting. Engaging in these design experiments in civics is also a practice of care: the care of the possible. The phrase “care of the possible” comes from an interview with Isabelle Stengers (2011) in which she discusses how William James influenced her work. Stengers used this phrase to describe pragmatism, and it seems fitting inspiration here; pragmatism, particularly feminist pragmatism that emphasizes imagination as foundational to an experimental approach to democracy, has influenced this book. This phrase resonates with the activities and outcomes of design experiments in civics, and the values and affects that motivate those activities and outcomes.

To me, care of the possible entails a commitment to tending to diverse potentials, to conditions and consequences that have yet to be realized. In the context of democratic inquiry, these are diverse potentials of communal life. This care is made concrete through the particularities of the event. And while care occurs “in the small,” it also extends beyond the immediacy of our situations to inspire our theories and desires of what civics might be. Throughout this book, we can locate care of the possible in and across the various projects. We find care of the possible for what a smart Atlanta might be, how a foraging collective might make use of emerging technologies, and how residents might make use of data to garner resources for their neighborhood. We also find care of the possible for diverse subjectivities,

for what commoning might be, and how institutions might be differently configured. Such care of the possible is a practice of cultivating inspired and resourceful aspirations for our collective conditions and experiences of democracy.

There is an expansive body of scholarship on care, springing forth from feminist theory. Care is so compelling because it attunes us to the world and to each other in ways that are in stark contrast with prevailing discourses that laud domineering forms of action. Carol Gilligan's (1993) work on the ethics of care is foundational to contemporary theories of care. An ethics of care, according to Gilligan, stands apart from other forms of ethics that prize logic and reason above all else, and tend toward generalizable principles. Instead, a feminist ethics of care is relational. Because it is relational, a feminist ethics of care is not detached or impartial. Joan Tronto's work on care is particularly important for this inquiry, as Tronto articulates care and democracy. Fisher and Tronto (1991, 40) define care as "a species activity that includes everything that we do to maintain, continue, and repair our 'world,' so that we can live in it as well as possible. That world includes our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life-sustaining web." This concept of care, for Tronto, should be foundational to democracy and to our democratic institutions. Her concept of "caring with" is a call to take up the collective responsibility of care in society, and this responsibility and response becomes defining of democracy (2013).

Within the social study of science and technology there has also been an invigoration of the concept of care. This work is relevant as it tends to examine care in relation to the ways that science and technology shape and are shaped by care and develop in sociotechnical practices. Annemarie Mol's (2008) examination of how a logic of care contrasts with the prevailing logic of choice that characterizes contemporary medicine offers a corollary to issues and practices of care in civics. For María Puig de la Bellacasa (2017), care becomes a way to move beyond matters of concern, to highlight the affective attachments that underpin our relations to issues.

Much of the work on care and design is grounded in familiar caring environments, such as health and medicine. Ian Hargraves (2018, 88) poses the question: Why is design relevant for care? He offers the response that fundamentally design is a practice that works to make people matter: "Because people matter, we design." For Hargraves this concept of people mattering

connects design to medicine through care. I would argue, the same articulation is possible with regard to civics. Recently the discussion of design in relation to care has expanded beyond standard caring environments. For instance, Austin Toomb's research examines how care provides an orientation to understanding practices and sites of making, such as so-called hackerspaces. What characterizes these spaces, and the activities that take place there, is not so much some virtuosity of innovation but the labor of maintenance and of tending to relations (Toombs, Bardzell, and Bardzell 2015). Eric Gordon and Gabriel Mugar's work on civic media and what they term "meaningful inefficiencies" also centers care to the work of design in the context of civics, arguing that "care is always the outcome of civic design—it is what publics, when given the chance to create together, seek to achieve" (2020, 18). More expansive still, in 2019 a group of thirty-two scholars published the Lancaster Care Charter, a declaration for aligning design with care (Rodgers et al. 2019). Significant to this inquiry, the Lancaster Care Charter is oriented toward the design of possible futures, and it looks to care as a way to approach that work, through attentiveness to "Care of Complexity," "Care of the Project," and "Care of Relations." Notably, the Lancaster Care Charter is also reflexive and circumspect—it acknowledges the limitations of design as well as offering an aspiration for design as "a means of developing better ways of caring for our world, our cities, our livelihoods, our relationships, and for each other" (77).

Given its enduring commitments to democracy and feminism, it is not surprising that care has also taken on prominence in the ever-expanding praxis of participatory design. Similar to the concept of the commons, care offers a character and purpose to designing that engages issues of equity and strives to support collective action. Kristina Lindström and Åsa Ståhl (2020a, 1) propose a practice of caring design experiments, which "aim to foster maintenance and repair for livable worlds." Their work, like this inquiry, draws from the idea of democratic design experiments (Binder et al. 2015) and then directs those experiments toward the issues of the Anthropocene. Ann Light and Yoko Akama (2014) offer an interpretation of design as an endeavor of codesigning future relations. Their interpretation is in many ways akin to much of the work described herein and is another source of inspiration for this inquiry. For Light and Akama, such an endeavor of codesigning future relations is one of care. As they state, "But we see a role for participatory practitioners as custodians of care, creating spaces for others

to reflect, make mistakes, learn and debate” (160). We might think of the design experiments I have described as one example of such spaces. And the framing of the work of design as custodians of care is both reflexive and humble. Light and Akama then go on to state, “The making of futures needs care” (160). The care of the possible is this close tending to the making of futures.

I am not going to merely state, “this is all about care” and then be done with it. Rather, through this chapter I reflect on *how* care of the possible unfolds. In the process of doing so, I also acknowledge the complications of care and reflect on how an orientation and commitment to care might affect design as a field and practice. To begin with, there are at least two routes to care of the possible in design experiments in civics. The first route can be found in inventive problem-making; the second is through tinkering. Inventive problem-making extends the implications of the experiment beyond design, while also acknowledging its limits. Tinkering offers a way of characterizing the partial, while attempting to make civics work a bit better—recognizing “better” as an open, changing, and contested ambition. As a practice of care, inventive problem-making expresses issues and potentials to gather others to attend to them, while tinkering involves persistently tuning those things that matter. These are not the only ways that care of the possible occurs through practices of design and with designed things; I simply offer these expressions of care as germane to design experiments in civics.

Inventive Problem-Making as Care of the Possible

We tend to think of experiments as providing answers or solutions. But it is just as apt to say that experiments produce problems. As mentioned previously, Mariam Fraser’s (2006) concept of inventive problem-making is useful for characterizing the purpose and outcomes of design experiments. As a mode of inventive problem-making, design experiments spark knowledge and imagination. That knowledge and imagination often challenges our experience of unfamiliar conditions and unsure potentials. Such unfamiliar conditions and unsure potentials are akin to what Jane Addams referred to as “perplexities,” situations that require consideration, the resolution of which are not to be found in obvious or familiar courses of action ([1902] 2002). Such perplexities were fundamental to Addams’s work, coupled with experimentation. As Erik Schneiderhan (2011, 596) notes in his study

of Jane Addams and Hull-House, “In the pragmatist conceptualization of non-habitual action, then, perplexity and experimentation lead to growth, and this in turn fosters new perplexities and new experimentation.” While the design experiment may produce some answers, it also elicits questions about the conditions and potentials that we have brought forth and articulated through the experiment. The design experiment thus does not so much solve problems as it expresses problems and articulates the factors of problems. If done well, design experiments also initiate interest and chart courses of action. Through sparking knowledge and imagination, the design experiment produces compelling topics and situations for ongoing civic work. These topics and situations are possibilities that require care. As such, design experiments in civics are a part of care work, a whole that extends beyond the practices and fields of design.

To say that a primary outcome of design experiments is inventive problem-making is not a dismissal of problem-solving altogether. Inventive problem-making simply reorients designers’ relationships with problems and the activities of designing. Perhaps most significant, characterizing the outcome of design experiments as inventive problem-making creates space to admit that many problems might be better addressed through means *other* than design. In other words, inventive problem-making does necessarily produce a design problem. The outcome of inventive problem-making often directs us to look *someplace other than design* to address problems. This is in contrast with many approaches to design that look to turn all problems into design problems.

If one outcome of inventive problem-making is to realize that other practices might better address problems, then designers truly committed to those affected by those problems must make them tractable to others. The problems—their factors, relations, potentials, and consequences—need to be expressed to enable people other than designers to recognize and act on them. This is particularly important with experimentation in social and political domains that extend beyond standard competencies of designers. It is inappropriate to use design practices to address every problem. Such an assertion is not an abdication of the responsibility of designers. Rather, I merely wish to recognize humility, acknowledge the limits of design practices, and convey respect for other fields. There are always other ways of knowing, making, and doing. It would be sheer vanity and conceit to think that any problem expressed *through* design might be addressable *by* design.

Recalling the *PARSE* project demonstrates how care of the possible can identify problems rather than solve them. *PARSE* participants contributed to new scenarios of a smart Atlanta through design games. We believed that storytelling was an art of design, and that stories express subjectivities. In creating and sharing these scenarios, our intent was not to specify which services should be built. Rather, we wanted to articulate pluralistic subjectivities and then present scenarios that express those subjectivities in all their complexities. These scenarios demanded attention from different constituencies, other fields and practices with the capacities to address the issues they raised. For instance, the scenario “Game Day Parking” described a situation where a resident used city data services to determine the availability of street parking and then dynamically generated pricing for an informal community economy that sold parking in abandoned lots. The legality of “Game Day Parking” is questionable, and it could require different data structures and procedures. But it is not the responsibility or work of design to solve the legal and technical issues that undergirded this story. And designers who attempt to do so may fall victim to folly and hubris. It is the responsibility and work of design to express concepts in such a way that those who might attend to these issues are able to recognize them as meaningful. Every city has technical, ethical, and political issues in need of articulation and expression to make them tractable to others. These issues need to be recognizable to engineers, lawyers, policy makers, councilmembers, and activists as relevant to them. Quite literally, the work of design in this context is the invention of problems: the making of difficult situations that require the attention and effort of others, and doing so in ways that generate interest.

The work of generating interest is an essential aspect of inventive problem-making. By generating interest, I mean compellingly expressing the conditions, potentials, and consequences that motivate action. As Stengers (2000, 91) put it, “Concerning those who have accepted to gather around the experimental apparatus to recognize its possible relevance, we must first of all say that they have allowed themselves to become *interested*.” Practices of design can be particularly valuable to provoke people to become interested; after all, design creates desire. Unlike fields and practices that purport and celebrate objectivity, much of the work of design is to capture our attention or to express arguments for how we should live in the world (Buchanan 2001). When designers craft products, services, and experiences, they make appeals

to affect, character, and values. Generating interest is fundamental to the practice of design.

We can witness this, again, by returning to *PARSE*. It began with a set of playful activities to stimulate the imagination and the desire for invention. The game's format, structure, materials, and flow were intended to make the topic of smart cities accessible. Few people find the idea of spending hours talking about sensors and data compelling, because the connection between such technologies and everyday life is tenuous. The first step of the project was to craft a happening that would assemble those who might be affected by smart-city technologies but who are not attending to them or otherwise not welcome to participate in them, and to provide the impetus and means for creative expression from those people. The subsequent step was to take those abbreviated concepts and draw them together as stories. This too was an endeavor of generating interest. The stories were intentionally told and shared in formats intended to pique curiosity and draw readers in. We made decisions about the narrative forms and content with the recognition that designers were not the audience for the resulting stories. Rather, the audiences for these stories were government employees, residents, and even those in industry. Our hope was that these stories might pose problems that required *their* perspectives and capacities to address.

As design experiments in civics, these activities offer a set of conditions and experiences that enable us, collectively, to reflect upon whether or not such conditions and experiences are desirable and manifest the values we aspire to. These experiments were also prefigurative; they modeled a means-end relation through qualities of democratic togetherness (Asad 2019; DiSalvo 2016; Swain 2019; Yates 2015, 2020). In the process, they produced things like stories, devices, encounters, and experiences. These things became the material and affective remainders of design experiments—left behind as infrastructure for our ongoing imagination of democracy “in the small.” The problems posed by design experiments became another component of infrastructure for imagination and continuing explorations of civics. When we speak of inventive problem-making as care of the possible, it draws our attention to ways to identify and express what might be needed if we chose to pursue those potentials. Care of the possible, then, is both “in the now” and oriented toward futures. Through the problems expressed, design experiments in civics nurture possibilities for ongoing action. These courses of ongoing action must extend beyond the work of designer and designing

if they are to be democratic. As Binder and colleagues describe, through the experiment “‘the possible’ becomes tangible, formable, and within reach of engaged yet diverse citizens” (2015, 16).

Reflecting on the projects in this book, they are rife with inventive problem-making. Some of the problems they produce are due to inadequacies. However, we should not reductively cast all problems as deficiencies, because deficiency logics tend to reproduce oppressive binaries and hierarchies. Many of the problems they revealed were simply unresolved conundrums. *Fruit Are Heavy*, which used low-fidelity sensors to monitor the relative ripeness of fruit in trees for urban foraging, expressed shortcomings of already existing services available in smart cities. *Fruit Are Here* created an interactive digital map to track fruit trees over time and asked whether foraging data could be used for environmental monitoring. Taken together, *Fruit Are Heavy* and *Fruit Are Here* raised questions about how technologies of mediation might shape practices of commoning. *Careful Coding*, which explored how to support residents in collecting data to advocate for resources for their neighborhood, expressed the dilemmas and promise of navigating informal institutions and the capacities and limitations of using data for advocacy. Few of these problems were able to be addressed through design. Most are better suited to other disciplines and practices. This is why making the factors, relations, and consequences of problems tractable to others is vital.

Interest paves pathways to care. This idea is inspired and informed by the work of María Puig de la Bellacasa (2017) and her argument for a move from matters of concern to matters of care. The starting point here is Bruno Latour's (2004) argument for a move from matters of facts to matters of concern, marking a shift in the endeavor of scholarship, away from merely revealing conditions and consequences and toward more active engagements with issues and their publics. For Latour this is a shift in the role of the critic, who is or should be “not the one who debunks, but the one who assembles . . . not the one who lifts the rugs from under the feet of the naïve believers, but the one who offers the participants arenas in which to gather” (246). Going further, for Puig de la Bellacasa, once we have arrived at matters of concern, then we might again be moved “toward more affectively charged connotations”—toward matters of care. She offers a simple and powerful demonstration: to say “I am concerned about something” and “I care about something” are two different statements. The statement

of care “adds a strong sense of attachment and commitment to something” (2017, 42).

That attachment and commitment to something—that care—should be basic to a practice of design experiments in civics and more generally to any practice of democratic inquiry. And yet, we also must acknowledge that such attachment and commitment is not basic to much of design. Standard problem-solving approaches in design make it possible to treat situations in a detached manner. If a designer believes they can definitively remedy a situation or reinvent it anew, there is no need for attachment and commitment. Within such a belief system, conditions will supposedly be so transformed as to conclusively resolve whatever “the problem” was, with no further need to attend to it. Similarly, approaches that center designers and designing render every situation as opportunistic to design. Conditions and consequences simply become possibilities to be cared for to the extent they further the occasions for design. This is why, in the context of design experiments in civics, it is crucial to appreciate inventive problem-making as an affair that seeks audiences and vectors of action other than design. We, as designers, should not participate in care to legitimize and perpetuate design; we should participate in care to cultivate possibilities for communal life.

Tinkering as Care of the Possible

Another way care of the possible unfolds in design experiments in civics is through tinkering. There are two paired qualities of tinkering that mark it as distinct from familiar perspectives on design. First, tinkering is an ongoing process without an end state. Second, tinkering is a practice of adjustment and tuning, rather than invention of the new. What makes tinkering a practice of care is the persistent attention to and pursuit of possibilities that might be “better.” This “better,” however, is not predetermined. This “better” is the subject of democratic inquiry through collective making, use, and consideration. What is being cared for are both the conditions in the moment and the potential that conditions might someday be otherwise.

Myriam Winance (2010) has described practices of tinkering as care by exploring how a range of actors participate in processes of adjusting wheelchairs. This tinkering does not only benefit whoever is sitting in the wheelchair—disability becomes a matter for friends and family who help maneuver the wheelchair, nurses responsible for lifting the person in

and out of the wheelchair, and doctors who see the wheelchair as part of a patient's treatment or recovery. Winance calls this process "empirical tinkering," the "purpose of which, for the people involved, is to empirically shape an arrangement between the persons and the chair that suits them and that causes the emergence of movement sensations, possibilities, and abilities for everyone" (95). While the ends of this tinkering are improved movement, sensations, and abilities, the means of achieving those ends involve actions that are made possible by working with things. Getting a wheelchair into working order is an ongoing, distributed, and material affair.

In this example, while tinkering centers on the wheelchair, it is by no means limited to only the wheelchair. This tinkering occurs in adjustments to the chair, adjustments in the environment, and adjustments among all of those who make use of the chair. Such tinkering might involve raising or lowering the seat. It could involve putting a pillow on the backrest or swapping out the default handgrips for more comfortable grips. Such tinkering might also involve moving furniture in a room to accommodate the wheelchair's turning radius. Or it could involve purchasing a pair of gloves for the person in the wheelchair or for friends and family who push the wheelchair long distances. None of these adjustments will once and for all "fix" the wheelchair. These adjustments are persistent contributions to the ongoing use of the wheelchair. And through that persistent contribution to ongoing use, they express the shared values of all those who engage with the wheelchair. One such value might be that mobility is a human right. Tinkering, then, becomes one of many ways to pursue that right. At the same time, it is important to recognize that these values and ends are dynamic and relational. People's needs and desires change, as does the environment in which their efforts are embedded. Tinkering as care must therefore continue. Those who participate in tinkering do so collectively by sharing a commitment to the conditions and possibilities of all involved. Tinkering, thus, is very much a matter of possibilities—in the case of the wheelchair, it demands sensitivity to those possibilities of movements, affects, and capabilities.

Winance's conceptualization of empirical tinkering describes this second way that care of the possible occurs. In design experiments in civics, we—designers, residents, foragers, municipal workers, and so on—collectively tinker with the materials, processes, habits, and customs of civics. We tinker with the stories of smart cities to encourage them, and the futures those

stories proffer, to be more expansive and inclusive. When we tinker with sensors and maps, they become devices that might augment informal systems of food provisioning. Involving ourselves with data collection tools and procedures through tinkering can cultivate and sustain more beneficent relations between residents and government. And when we engage in these activities, we are also tinkering with the constructs of civics. We are tinkering with subjectivities. We are tinkering with theories such as commoning that inspire and inform our aspirations. We are tinkering with the institutions that shape our democratic relations. To tinker as care demands an attentiveness to the ways design can both enable and constrain civic life.

Recall the *Careful Coding* project, which explored how residents collected and managed data that might be used to draw municipal resources to a neighborhood, while preserving residents' capacity to decide on how to prioritize and attend to issues. Through design experiments in civics we manifested informal institutions and relations between residents and city government. The things made and used probed existing configurations of power and responsibility and instantiated different configurations of local politics and direct democracy. Through the design experiment, residents, code violation officers, staff from the Code Enforcement Section, and designers experienced how mandates for data collection, accountabilities for the veracity of information, standards of expertise, and charges to act might be differently distributed. Through processes of making, political relations were expressed, trialed, and considered in action. The paper forms, maps, digital applications, walks through the neighborhood with residents, the cleaned and formatted spreadsheets of data—together, they comprised events within which we, collaboratively, produced and explored diverse civics. Furthermore, these events projected beyond the immediate situation and functionality. They showed that we might also reconfigure authority and agency within the neighborhood.

Although we were working with different materials and conditions than Winance, throughout the design experiment of *Careful Coding* we tinkered in ways that parallel her description of tinkering with the wheelchair. And likewise, we were engaging in care (Baker and Karasti 2018; Meng, DiSalvo, and Zegura 2019; Zegura, DiSalvo, and Meng 2018). One way this tinkering occurred was through ongoing making and modifying tools for data collection. We selected, made, and used tools as we sought to improve the process. Then we made something different and used it again to further learn.

This endeavor was different from the familiar progression of iteration and prototyping in design, because there was no assumption we would arrive at a final tool with precisely the right set of features. As a process of tinkering, there was an acceptance that the cycle of making and making adjustments would continue over and over again as we worked together.

These adjustments were not predetermined by a set of defined user requirements. Rather, these adjustments were ongoing responses to myriad and disparate factors: the differences in communication habits between code enforcement officers, the realization that our process for matching photos to addresses wasn't working, and the effect of the seasons on prioritizing and deprioritizing certain code infractions. Such design experiments, then, embrace a strategy of impromptu amendments and modifications. While we designers from the university did much of this tinkering, we were not alone in this work. Our neighborhood partner Les would adjust how the tools were used on the fly when collecting data with his volunteers. Our contacts in code enforcement would look over the data, providing feedback on what was accurate and not accurate. Another code enforcement officer might be assigned to the neighborhood, or a different neighborhood could decide to use the tool. The neighborhood could change too, so there may be less need to collect code violations, and in such a situation Les might come to believe another type of data would be more valuable in generating interest. Such design experiments in civics understand and accept that communities and the knowledge they hold are always changing.

Data was not the only site of tinkering in *Careful Coding*. Indeed, *Careful Coding* was fundamentally about tinkering with institutions. Throughout the experiment, we designers tweaked the shape and substance of encounters between ourselves and residents, between the residents and code enforcement officers in the streets, and between ourselves and the staff of the Code Enforcement Section. At the same time, residents, code enforcement officers in the street, and the leadership of the Code Enforcement Section made requests of us, as individuals and representatives of institutions. These requests influenced how we approached our research and design: *they* tweaked *our* practices, which affected the character of our affiliations. Together, we slowly manipulated both formal and informal institutions through care. As Winance (2010, 102) describes, "Here, care bespeaks a sensitivity shared and distributed among the actors. The object of care is not one single person but a collective. The work of caring involves attention that is built by the collective and

directed towards the sensations and possibilities of action that emerge for the person concerned.”

In these design experiments in civics, however, the focus is not on a single “person concerned,” but rather on the conditions themselves, the civic environment, and the possibilities therein. In *Careful Coding*, all of us were working to imagine and instantiate what these relations might be. Of course, our values were different, and there were disagreements about the structure of those relations. There was friction and agonism. The persistent quality of tinkering provided an opportunity for the ongoing making, remaking, and contestation that are characteristic of robust civic engagement in democracy. Thus, tinkering-as-care is concerned with continually trying to make things work, knowing that even the definition of what it means for things to “work” is multifaceted and always becoming. We tinker with care because we believe things might be better in the future. We tinker not toward a singular grandiose story of achievement but with an acceptance of the challenges and hazy affects that accompany indefinite tending.

“Better” and “good” are important words to think about through tinkering. They are also words that should cause hesitation and concern. Design has long been normative and hegemonic. In design, to talk of “making things better” can be interpreted as an imperative to change, which when embraced uncritically, simply reinforces the status quo. But as Annemarie Mol, Ingunn Moser, and Jeannette Pols state in their introduction to *Care in Practice* (2010, 13), “Raising an argument about which good is best ‘in general,’ makes little sense. Instead, care implies a negotiation about how different goods might coexist in a given, specific, local practice.” In other words, “better” and “good” are labels to conditions that are not universal or absolute but in constant and ongoing arbitration through discovery, invitation, and contestation.

To discuss the “good” in design opens a history of what counts as “good design” that is grossly limited, often pointing to an unacceptably narrow history of making and makers. In contrast, in the context of a feminist ethics of care, “better” and “good” are situated terms. It is these notions of “better” and “good” that should motivate care and tinkering—not the self-satisfied cultural norms of so-called good design. Continuing with Mol, Moser, and Pols (2010, 13), “In the ethics of care it was stressed that in practice, principles are rarely productive. Instead, local solutions to specific problems need to be worked out.” In other words, when we tinker to make things better, that better-ness is constrained. It is a matter of improving

a situation a bit and perhaps only for the moment. Tinkering is particular, not universal. In this sense, tinkering is closer in practice and affect to mending, repairing, and maintaining than to creation. These facets distinguish tinkering from domineering discourses of innovation. The “good” that is pursued through design tinkering is not an absolute—it is only good enough for now—and remains open to contestation, and the suggestion that the world might be otherwise.

Similar to inventive problem-making, tinkering is a practice of care that exists in the moment and extends into possible futures. This is another way we can speak of care of the possible—as a kind of infrastructuring or institutioning that tends to the now while producing resources and experiences that can be carried forward to nurture and provision conditions that have yet to become (Binder et al. 2011; Huybrechts, Benesch, and Geib 2017b; Le Dantec 2016). In *Careful Coding*, we tinkered with the tools and procedures of data collection in the now, and that data could continue to have an effect even after the project ended. Likewise, when we tinker with the informal institutions of governance in the now, those encounters can produce experiences of togetherness that linger and can be reproduced in other places and times. Because tinkering is never complete, it keeps us open to ongoing material and relational engagements. As long as we are tinkering, the collective conditions (and their meanings and consequences) are open to interpretation and different courses of action. In other words, tinkering is a means to resist closure, to refuse to capitulate. Tinkering is a subtle but persistent refusal to simply let things be.

A refusal to simply let things be through tinkering occurs through the material stuff, in the encounters, and in the practices and environments in which they are situated. With *Careful Coding* and *PARSE*, we are tinkering with configurations of authority and agency in local government. Through *Fruit Are Heavy* and *Fruit Are Here*, we tinkered with how the commons and commoning might be differently configured. It was not just that the procedures of data collection or activities of foraging might be different, or that the stories we told of smart cities could be more varied. It was also that the aspirations and values that undergirded those practices and characterized those environments might change. In those moments, we were tinkering with our imaginaries. Tinkering, more than being simply reformist, is a humble practice of exercising our collective political imagination.

Tinkering cares for the possible, then, in a way similar to inventive problem-making. Both strive to carry potential forward by providing opportunities for us to consider our civic environment as conditions that we might transform in small but meaningful ways. Each design experiment is an event where we explore conditions, modes of action, and consequences. One aspect that differentiates inventive problem-making and tinkering is the proximity of design and the designer in response to those conditions. In inventive problem-making, the intended outcome is often to articulate problems that people other than designers might act on. In tinkering, the designer or the activities of design are often involved in that response. Both endeavors can be understood as providing a shared commitment that we can use to understand why we do design experiments in civics. But we should also attend to the fact that care itself is complicated.

Complications of Care

While care is a significant way to attune design, it is not a panacea for its ills. We can use care as a commitment that anchors design experiments in civics. Care helps explain what we are doing in these experiments, and why we persist when faced with their recurring shortcomings. Care, however, is not without problems.

Within design, the future is often a gilded horizon. This is deceiving: what is possible may not be desirable. Even when the possible is desirable, the process of striving toward it may produce unanticipated outcomes (Parvin and Pollock 2020). This is the history of modernism, and one of the ways “wicked problems” are perpetuated. Even with care. The context of contemporary civics is particularly troubled. For example, data is pervasive throughout these experiments. All these design experiments differently participate in making and sharing data about people and their environments. That data is thick with significance, yet our use of that data is hardly innocent; research on the misuse of data in civic contexts is considerable and growing. To simply say that certain data was collected in a practice of care, or for the purposes of care, does not ameliorate these concerns or consequences. The actions we undertake under the umbrella of care may still cause harm. Possible futures may not align with the desires that provoked the experiment. There may be experiments in civics that we should not undertake and possibilities we

should not explore, regardless of being motivated by care. Refusal should always remain an option.

The ways I have discussed care in this chapter emphasize its generally benevolent character. Yet this is not always the case. The discourses and practices of care have repeatedly been rallied to preserve worlds and ideologies replete with prejudice. The preservation of identities is a common example. Care is easily called upon in the service of nationalism, segregation, and other structures that perpetuate inequity. Claiming that one is “caring” for a nation or for a particular group of people can be a paternalist strategy for obfuscating nationalistic desires and racist beliefs. One might argue that such insidious strategies are perversions of care, but they exist nonetheless and remind us that the moral valence of care is complicated.

The affective valence of care is likewise complicated, because caring is not a feel-good moment. It requires long-term participation and labor. As previously discussed with regard to events and quasi-events, appreciating design experiments in civics requires being open to a broader range of affects. When we endure—an affective state of some experiments—this is not a feeling of fulfillment or success. When we endure, we tolerate, withstand, and sustain. There may be a feeling of tenacity that accompanies endurance, but it is not the same feeling as triumph. Likewise, tinkering is not the consummation of some exceptional process of creation. There may be a sense of satisfaction in the moment, but tinkering, like the experiment, begets further wants and desires. It is crucial to recognize that care is often exhausting labor.

The “something more” that characterizes care comes at a physical, emotional, and mental cost to caring people. Historically, care has been gendered and racialized. Caring-as-labor has been the work of women and people of color hired (usually at lowly wages) into caring roles. The work of care is demanding, messy, and at times unpleasant. Oftentimes, care work involves loss. While we engage in care to cultivate or sustain, what or who we care for may inevitably pass away. Consider practices of hospice: we care for those who are dying. In such instances, we do not harbor a false belief that we might mitigate the inevitable, but we still care with the hope that we might contribute to comfort and enable dignity in the face of loss.

When care scales to the level of institutions, it can also usher in the very affects and authorities of design that we want to undo. Joan Tronto (2010, 161) warns of two hazards of creating caring institutions: “paternalism, in which caregivers assume that they know better than care receivers what

those care receivers need, and parochialism, in which caregivers develop preferences for care receivers who are closer to them." These concerns are endemic to design. Practitioners and critics alike have repeatedly challenged the ways that design reinforces and reproduces oppression, especially in contexts where the desired outcome is some sort of "good" (see Julier and Kimbell 2019; Nussbaum 2010). Strategies and tactics of decolonizing and feminist practice attempt to redirect these affects and authorities (Mazé and Wangel 2017; Schultz et al. 2018; van Amstel and Gonzatto 2020). But the dominant discourses of design continue to assert claims of expertise in creative problem-solving that are oppressive. This is true even for those who seek to care.

All these affects, authorities, and their complications are present throughout the projects in this book. I have attempted to be authentic and forthright, to include both the promising and problematic dimensions of design experiments in my descriptions and interpretations. In doing so, I have also attempted to demonstrate how we might talk about the activities and outcomes of designing differently, attending to its tenuousness as much as its potential. If we want to take care of the possible seriously, by committing to design experiments in civics as one way of exploring contemporary democracies, we must acknowledge and express the fullness of care. That fullness is not flawless. Neither is the design experiment, nor any practice of democratic inquiry. The design experiment is not clean and tidy, but splintered, compromised, frustrating, full of longing, and uncomfortable. Michelle Murphy (2015) offers an insightful analysis of the discourses of care and cautions scholars against taking an uncritical embrace of care and assuming an association of positive feelings. She calls for a different approach to care: "A politics of 'unsettling' care strives to stir up and put into motion what is sedimented, while embracing the generativity of discomfort, critique, and non-innocence" (717). I hope I have conveyed such an approach throughout this book. Like democracy, care is inherently contested as it is practiced. The complications of care, however, are not reasons to abandon the care of the possible and design experiments in civics. While recognizing these complications, there is nonetheless value in caring and experimenting.

