# DIY Citizenship

## Critical Making and Social Media

Edited by Matt Ratto and Megan Boler

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# Foreword

Throughout history, the invention of new information and communication technologies has brought with it inflated hopes for liberation and democracy, only to have those hopes punctured by the inevitable crush of state and corporate power. Is the Internet an exception?

This question has animated new media scholars and activists alike ever since the first email lists and bulletin boards were used to organize and disseminate information at the dawn of the Internet age. There can be no doubt that the Internet and its related tools, like social networking and mobile computing, have placed powerful capabilities in the hands of individuals who collectively have used them in innovative ways to break free of powerful forces, expose corruption, and even bring down regimes once thought immoveable. The dramatic Arab Spring, fueled by social media empowered activists, is the most oft-cited of this type of "do-it-yourself" citizenship, but there are a multitude of other “springs” out there that follow the same playbook: individuals, networked together through distributed means of communication, outflanking and exposing the entrenched systems of power. As the many chapters in this volume reveal, DIY means taking matters into your own hands, not leaving it for others to do it for you. It means making decisions without the gaze of those in power saying what’s right and what’s wrong, what’s allowed or what’s not. A decentralized medium of communications alongside ad hoc, leaderless, “cloud-like” social movements, the Internet and DIY seem like the perfect match and a recipe for freedom and democracy.

The Citizen Lab, which is an interdisciplinary research laboratory at the University of Toronto that I have directed since its inception in 2001, is another example of the power of DIY and the Internet working hand in glove. In our case, we have deliberately borrowed the methods of state intelligence agencies—specifically, the combination of human-based and technical investigations with open source information gathering—and turned

them on their heads to watch the very agencies from whom we have liberally borrowed. We employ wide-area scans of the Internet in conjunction with field research undertaken by partners in dozens of countries to "lift the lid" on the hidden exercise of power beneath the surface of cyberspace.

But what we have found has been disturbing—indeed, calling into question the very liberating potential of the Internet itself. Whereas activists, citizens, and others have employed the Internet and new media to further democratic empowerment, we have reason to believe that the powers that be have quietly and effectively used them to do the opposite: to censor, monitor, and even disable and silence Internet-enabled social movements. We have tracked a growing market for sophisticated products and services that are sold to autocratic and repressive regimes, which use them to track dissidents, infiltrate opposition, and limit access to information and freedom of speech.

These disturbing findings of the Citizen Lab have been reinforced by the recent revelations of the National Security Agency (NSA) whistleblower, Edward Snowden. As Snowden has confirmed, the very social media upon which citizens depend, most of which are operated by US-based corporations who have for years been colluding with a secretive and mostly unaccountable US intelligence agency, can be a source of insecurity as much as liberation, of control as much as freedom. Every bit and byte of information we exchange, it turns out, are open for collection and analysis—a detailed record of our social networks, our trusted contacts, our movements and habits, even our innermost thoughts.

Whether the many forms of DIY highlighted in this excellent volume can eventually muster the energy and persistence to reign in growing state power in cyberspace is an open question. But ultimately, the answer to that question is up to all of us. Like all technologies before it, the Internet is what we make of it. It is ours. We need to remember that before it slips through our grasp.

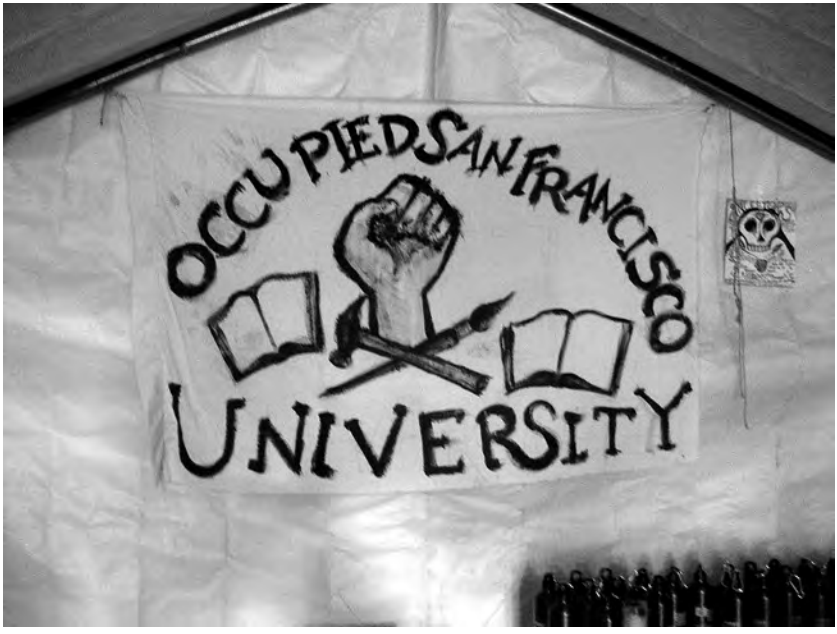
Ron Deibert, Director of the Citizen Lab,
Munk School of Global Affairs, University of Toronto
August 2013

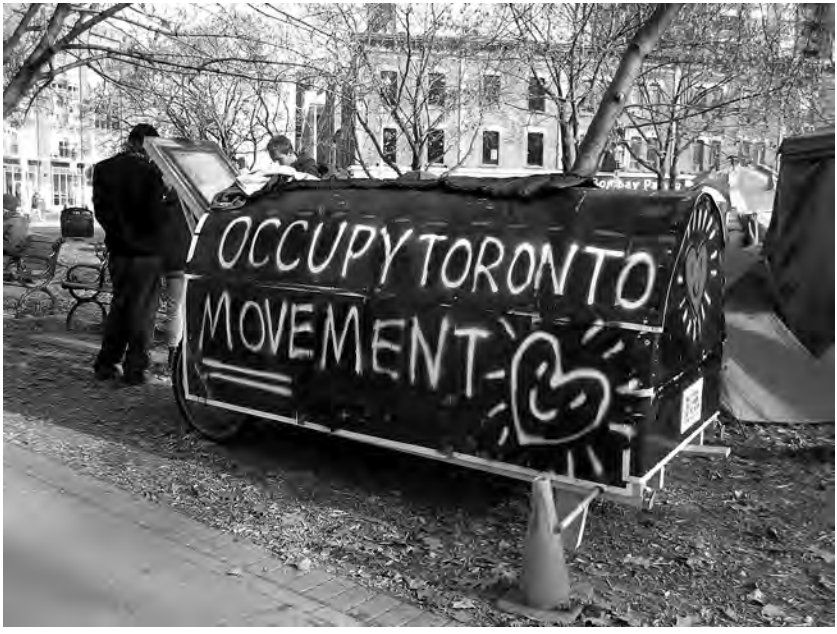
# Introduction

**Matt Ratto and Megan Boler**

DIY—do-it-yourself—no longer just describes the weekend warrior struggling to install their own bathroom tiles or build their own deck. Instead, DIY increasingly constitutes our lived, daily experiences, in particular those that involve media and communication systems. And increasingly, the DIY ethos has seismically reshaped the international political sphere, as can be seen in ongoing global uprisings and the uses of media and communications within a "logic of connective action" (Bennett and Segerberg 2012), a kind of "collective" or "networked" individualism (Rainie and Wellman 2012) constituting new hybrid social movements and practices of horizontal, participatory, and direct democracy (Boler 2013; Boler and Nitsou 2014). The Occupy Wall Street movement that began in September 2011—inspired by Los Indignados Movement in Spain, following the "Arab Spring"—represents just one example of such emergent, DIY political activities.

This volume brings together scholars, artists, and activists who are exploring the nature of DIY activity, discovering the potentials and the problems of digital and digitally mediated forms of making. The contributions address making as a "critical" activity, an activity that provides both the possibility to intervene substantively in systems of authority and power and that offers an important site for reflecting on how such power is constituted by infrastructures, institutions, communities, and practices. Critical makings (Ratto and Hoekema 2009; Ratto 2011a, 2011b)—such as low-power FM stations, video productions, civic rituals, community gardens, and octogenarian tidal power systems—are reviewed and examined in the chapters that follow. Critical making signals the ways in which productions—whether of video, web-based communications, gardens, radio transmitters, or robots—are understood as politically transformative activities by the individuals and groups described in each chapter. Critical making also signals the integration/simultaneity of processes and practices, the act of *making "things,"* and suggests that practices of "making" are potentially



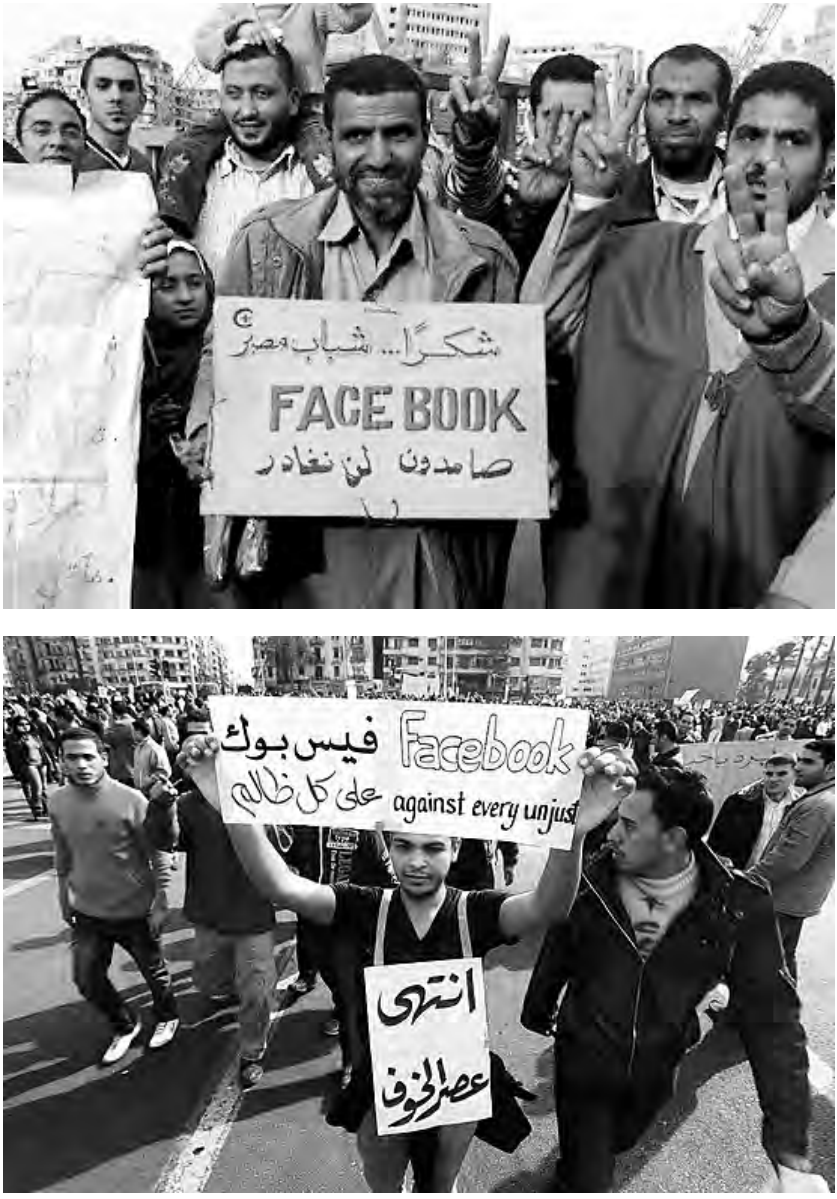

**Figures I.1 and I.2**
Images of Occupy movement. Boler personal archives.

linked to critically-infused reflection about aspects of the process itself, Critical making invites reflection on the relationship of the maker to the thing produced, reflection on how elements (whether nuts and bolts, bits, and bytes, or breath, blood, flesh, brain, and neurons) work together—in short, consideration and awareness of the mediated and direct experiences of interacting with the material world. In turn, our subtitle "critical making and social media" articulates the point of inquiry around the increasingly technologically and digitally mediated experience of our everyday lives, of labor in an information economy.

Offering another concept as a point of entry, Steve Mann (chapter 1) defines "maktivism" as a practice straddling hacking, making, DIY, and DIT, implying as well the intersections of the proprietary and the free, copyright, and copyleft: "Maktivism often involves the moral, ethical, and lawful ('white hat') elements of the 'hacker' ethos, but not necessarily the illegal 'cracker' ethos. Maktivism combines the DIY (do-it-yourself) ethos of home renovation with the DIT (do-it-together) ethos of the GNU Linux and Free Software movement." In his chapter, Mann also mentions "tinquiry": "tinkering as inquiry," another way of depicting the multi-layered nature of critical making and DIY citizenship.

Each contribution is conceptualized through the lens of "DIY citizenship," a term intended to highlight the diversity of ways citizenship is enacted and performed. While DIY activity had previously been characterized primarily in terms of youth subcultures (McKay 1998), digitally mediated DIY practices have recently become more mainstream. Terms such as "social media," "web 2.0," and "user-generated content" have become buzzwords, and platforms such as Twitter and Facebook are being used for overtly political purposes. The most obvious examples of these political shifts includes the so-called Facebook revolution that followed the 2009 Iranian presidential elections, or the "Twitter revolutions" that helped to end the rule of Zine El Abidine Ben Ali in Tunisia and Hosni Mubarak in Egypt in 2011. Such events constitute new modalities of political participation—"DIY government"—or, at least, such are the hopes and claims of many protestors and observers.[1]

Less overtly political are the large numbers of "modders," hackers, artists, and activists who redeploy and repurpose corporately produced content or create novel properties of their own, often outside the standard systems of production and consumption. This activity is not relegated to the sphere of the digital but also includes communities of self-organized crafters, hackers, artists, designers, scientists, and engineers. These groups are increasingly to be found online exchanging sewing and knitting patterns, technical



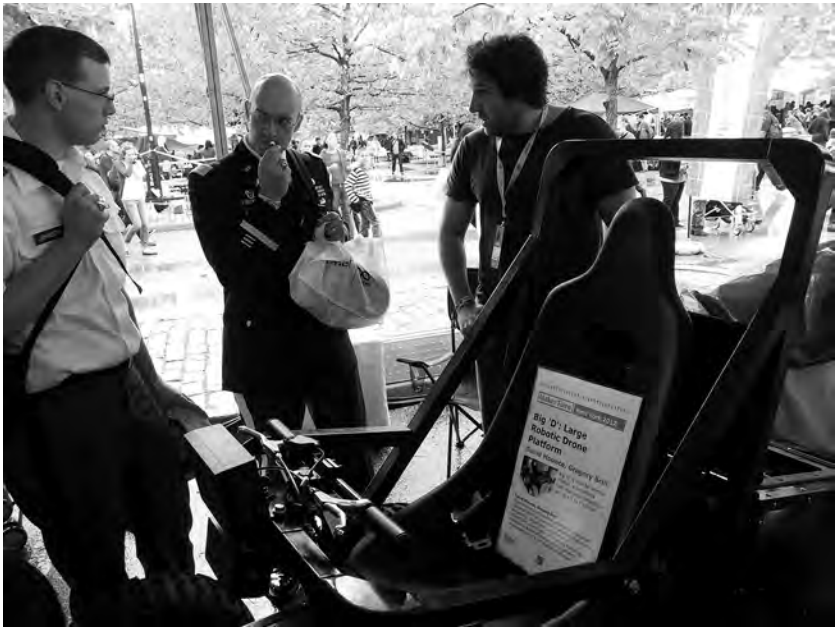

**Figures I.3 and I.4**
Images of Facebook, Egypt. Some rights reserved by Interact Egypt—Play Innovation.

data, circuit layouts, detailed electronics tutorials, and guides to scientific experiments, among other forms of instruction and support. Such activities can also be understood as political in the sense that they potentially challenge existing systems of authority—questioning ownership rights to media, for instance, or putting to the test traditional systems of peer review. Many of these "maker" activities begin to take on additional importance as dominant institutions, such as the military, corporations, and governments, increasingly recognize the ways in which DIY activities challenge traditional hierarchies of authority and the existing status quo.[2]

We suggest that these emergent communities of "critical makers" and political protestors that organize on- and offline are aptly described as "DIY citizens." As noted by Hartley (1999), these are individuals and social groups who, in becoming producers as well as consumers, are "making themselves up as they go along." DIY democracy perfectly describes the horizontal processes of leadership and consensus engaged in the Occupy Wall Street (OWS) movement. OWS participants patently rejected traditional assumptions, identities, and practices associated with "democracy" and instead conscientiously created and developed distinctly DIY organizational processes, values, and norms.

This self-creation can be seen in a positive light—for instance, as a reaction against the regulation of identity that can constitute the lived experience of a totalitarian government. However, it can also be understood as part of a hegemonic acceptance of the breaking apart and individualization of civil society. In fact, Rosenberg (2005) has called this the "diyization of modern society," pointing to IKEA as the most visible manifestation of the increasing privatization and individualization of the public realm. DIY citizenship, therefore, sits at the intersection of a series of tensions: between consumers and citizens, between experts and novices, between individuals and communities, and between politics as performed by governments and politics and DIY grassroots democracy. The authors in this collection take up the themes of social groups, competence, capacity, and the (often hidden) costs of participation. DIY citizenship potentially invites us to consider how and when individuals and communities participate in shaping, changing, and reconstructing selves, worlds, and environments in creative ways that challenge the status quo and normative understandings of "how things must be."

For example, in chapter 4, "Radical Inclusion? Locating Accountability in Technical DIY," Christina Dunbar-Hester explores how media activists negotiated maker identities and traditional associations between technical work and gender and race as part of their DIY activities. For the groups




**Figures I.5 and I.6**
Images from Maker Faire 2012. Ratto personal archive.

Dunbar-Hester studied, DIY was not just about building alternatives to corporate radio stations, but also a means of addressing the ways in which technical expertise was unevenly distributed in their community. Thus, in order to enact their overtly political activity of creating alternatives to mainstream media, they had to work to develop and enhance the technical abilities of female and nonwhite members, goals that were somewhat contradictory to each other. For this group, DIY citizenship is about technical proficiency, which is understood as being linked to political power.

Similarly, chapter 19, "Citizen Innovation: *Active*Energy and the Quest for Sustainable Design" by Ann Light, reviews a participatory project that involves somewhat nontraditional makers. This group, the Geezers Club, is a group of men between sixty and eighty years of age with little or no formal training in engineering or related fields. With the support of researchers from the University of London, the Geezers Club has been designing and building alternative energy systems based on the use of tidal power from the Thames River—an inspiring story about technical capacity-building for amateurs, social intervention, and participatory political power.

Throughout this volume, DIY citizenship provides a conceptual thread for relating diverse practices and domains—allowing us, for example, to compare Dunbar-Hester's media activists to Light's Geezers Club, and to see their identities and practices as related. These examples, like others in the volume, demonstrate a shift in the possibilities of political participation. To be a citizen is no longer merely about the standard political activities of voting, advocating for policy changes, and protest. Now, as the chapters in this volume highlight, citizen action is diverse, participatory, and discoverable in unexpected locales. These broadened concepts of citizenship call into question the traditional notions of the public sphere as performed through either rational deliberation (Habermas 1962/1989) or contested debate (Mouffe 1992). In other words, DIY citizenship draws attention to nondiscursive activity and "direct action" (McKay 1998; Doherty, Plows, and Wall 2003) as socially interventionist. Creating community gardens, filming personal music videos, and even knitting can in this light be understood and evaluated as emergent modes of political activity.

## Origins and Organization

The ideas for this collection originated from a 2010 conference on DIY Citizenship convened by the editors.[3] This international conference brought together diverse participants—scholars, artists, practitioners—representing a wide range of disciplines (including communication and media studies,

education, science and technology studies, geography, architecture, information studies, and sociology) with shared interests in the notion of DIY citizenship.

During the three-day conference, participants sometimes heatedly engaged in debate and discussion regarding the term "DIY" as well as "citizenship." These debates are reflected within the chapters in this book; authors emphasize different aspects of and questions about DIY and citizenship. With respect to word choice, one must immediately query "DIY": are we not talking, often, about DIT, or do-it-together? Might not the spirit of much that falls under DIY be associated more with "DIO"—do-it-ourselves, emphasizing the collective and collaborative action of the individual and atomistic invocation of a self that acts? As Reilly (chapter 8) notes from his interviews with tactical media pranksters the Yes Men: "Bichlbaum argues . . . this DIY ethic is only truly effective when actions take on a cohesive collaborative bent; to pull off these labor-intensive hoaxes requires 'the assistance of huge armies of individuals.' We playfully noted that DIY might best be described as do-it-*yourselves* (pl.), given the often large number of group members needed to carry out a particular action." Reilly describes a wide diversity of work that sees itself under the DIY umbrella.

Similar to the diverse concepts of DIY expressed by conference participants, the notion of "citizenship" raises myriad questions. With its connotation and realities of inclusion/exclusion and related forms of violence, "citizenship" is a problematic and loaded term given its implications and histories. Nonetheless, the term arguably merits reclaiming and repurposing; our choice of the term "citizenship" for the 2010 conference and for this book seeks to raise questions regarding new forms of participatory engagement and world-making. Traditionally, the concept has invoked notions of membership, rights, and belonging, all of which have been curtailed and limited by nation-states. But new ways of considering citizenship are emerging. In an illustrative account, Stoker et al. (2011) examine the limits of citizenship as it is enacted within an increasingly global society, but also provide updated conceptions of what citizenship practices may look like in their best sense. They note the continuing debate within political theory over whether citizen participation has intrinsic or instrumental value, and they emphasize that most theorists currently "place a premium on increasing citizen participation as a way of ameliorating the disconnect . . . between citizens and those who make decisions in their name" (Stoker et al. 2011, 33). In their account, they note five challenges to robust citizenship: (1) differential rates of participation across social groups; (2) the competence of citizens to make reasoned judgments; (3) the capacity of

citizens to influence or control political decision making; (4) the costs borne by citizens and public authorities; and (5) the extent to which participation can be embedded at significant levels of governance (Stoker et al. 2011).

Finally, four broad and overlapping themes emerged from this event, which serve to organize the chapters into four parts:

Part I: DIY and Activism: New Modes of Civic Engagement and Participatory Politics
Part II: DIY and Making: Learning, Culture, Hacking, and Arts
Part III: DIY and Design: Opening the Black Box and Repurposing Technologies
Part IV: DIY and Media: Redistributing Authority and Sources in News Media

Each part begins with a short introduction to the general similarities and differences between the chapters within the given section. The book's structure highlights how DIY practices are evolving through the engagement of technologies and media with social and cultural arenas—arenas ranging from activism and media to design hacking, arts and culture, and education. Each area of cultural production is increasingly shaped by uses of technologies and media, sometimes developed specifically for the particular cultural arena and more often "repurposed" to align a corporate produced technology or media platform with an unintended use or practice. But ideas of DIY and of citizenship—and their conjoining in this portmanteau phrase—are not taken for granted by the authors in this volume but are explored through their own conceptual and empirical examples.

In the next sections, we unpack further some of the conceptual histories and implications associated with "citizenship," "DIY," and "DIY citizenship."

## Origins of DIY

The earliest uses of DIY can be seen as prescient forecasts of the anti-consumerist values that continue to fuel contemporary DIY cultures. The term "DIY" came to be associated with the counterculture of the late 1960s. Gauntlett discusses the connections between emerging countercultural critiques of the formal educational system[4] and thinkers who emphasized needs for experiential and do-it-yourself modes of alternative schooling (Gauntlett 2011, 50). He characterizes the central theme of all DIY practices as the "rejection of the idea that you overcome problems by paying somebody else to provide a solution" (Gauntlett 2011, 56). Leveraging thinkers

such as Alan Watts, John Holt, and Ivan Illich, Gauntlett provides a historical and conceptual point of departure for DIY activities. Equally, Stewart Brand's *Whole Earth Catalog* provided a fixed origin for a wider cultural appreciation of DIY sensibility. First published in 1968, the *Whole Earth Catalog* provided a key touchstone for many countercultural movements and communities that continued to develop into the 1980s.

By the late 1980s and early 1990s, DIY culture had evolved with the innovative emergence of "zines," a significant cultural production practice of both punk and third-wave feminist cultures.[5] Amy Spencer's book *DIY: The Rise of Lo-Fi Culture* (2005) provides some of the history and details regarding these activities, noting in particular the ways proponents of lo-fi culture emphasized low cost and DIY alternatives to mainstream forms of media production. George McKay's edited collection *DiY Culture: Party and Protest in Nineties Britain* (1998) brings together a number of contributions exploring the raves and protests that characterized 1990s activism in the UK and elsewhere. People around the globe were enacting forms of protest and direct action that increasingly wedded "art" and "politics." As John Jordan writes in his oft-cited contribution to McKay's volume:

> Since the beginning of this century, avant-garde agitational artists have tried to demolish the divisions between art and life and introduce creativity, imagination, play, and pleasure into the revolutionary project. Inspired by and following in the footsteps of the protest movements and counter cultures of the sixties, seventies, and eighties, the diy protest movement is finally breaking down the barriers between art and protest. It seems that at the close of the century new forms of creative and poetic resistance have finally found their time. (Jordan 1998, 129)

Indeed, this conjunction of art and protest has only snowballed over the ensuing decades; feminist artists working in craft and activism have coined the term "craftivism," which continues the legacy of DIY culture. Key texts such as Levine and Heimerl's *Handmade Nation: The Rise of DIY Art, Craft, and Design* (2008) and Tapper and Zucker's *Craft Activism: People, Ideas, and Projects from the New Community of Handmade and How You Can Join In* (2011) provide detailed stories and examples from practitioners of craft-based lifestyles.[6] Like the lo-fi movement before them, these individuals and social collectives find value in the self-production of craft objects and understand this work as a protest against the increasing commodification of society.

We now turn to an examination of how the concept of DIY citizenship has been articulated and used, discussing the advantages and limitations of its early articulations. We suggest that, moving forward, conceptions of

DIY citizenship require a more robust account of power relations to avoid familiar and empty invocations surrounding "democracy" rhetoric that too easily slide into liberal assumptions of individualized agency.

## Hartley's DIY Citizenship

The specific articulation of "DIY citizenship" is one of two notions John Hartley adds to Thomas Marshall's citizenship "types"; civil, political, and social (Jacka 2003). To these, Hartley adds a fourth—"cultural"—and a fifth, what he calls do-it-yourself (DIY) citizenship. As Jacka summarizes:

> For Hartley (1999), cultural citizenship has to do with "identity" in the sense of identity politics—the "politics of the internally colonized demographics of modernity" (the poor, women, people of color) (p. 167). The second—DIY citizenship—supersedes (but continues to coexist with) the first. It is based on difference rather than identity and consists in the "practice of putting together an identity from the available choices, patterns and opportunities on offer in the semiosphere and the mediasphere." (Jacka 2003, 185)

According to Hartley, the DIY citizen is one who creates their identity and individuality through a process of choosing from the semiotic material on offer. This understanding of identity construction is resonant with recent notions of "self-branding" (Hearn 2008) and the production of self-identity seen by Giddens as one of the constitutive elements of late modernity (Giddens 1991). But Hartley takes this further, equating such processes with the production of citizenship as well: "'Citizenship' is no longer simply a matter of a social contract between state and subject, no longer even a matter of acculturation to the heritage of a given community; DIY citizenship is a choice people can make for themselves. Further, they can change a given identity, or move into or out of a repertoire of identities. And although no one is 'sovereign' in the sense that they can command others, there's an increasing emphasis on self-determination as the foundation of citizenship" (Hartley 1999, 178).

Hartley's articulation comes under some scrutiny and critique for two primary reasons: first, his definition appears to assume the problematic atomistic individual long associated with liberalism. This is a conception of self deeply rooted in Western thought, which sees individual choice being able to supersede realities of social hierarchies, power differentials, and the uneven playing field on which—despite the best rhetoric of liberal democracy—individuals do not start out with equal handicaps. The notion of DIY raises—and may beg—a host of questions about the ways in which

these potentially "radical" practices may align with or be appropriated by an emphasis on liberal individualism. To value "doing it oneself" sounds very much like "pulling oneself up by one's bootstraps" and results in a continued privileging of the individual. One need merely consider general notions of the "digital divide" to see that questions of access, power, and social and cultural capital challenge any generalized or universal concept of DIY citizenship.

A second and related problem is highlighted by Jacka: "it is difficult to see the difference between Hartley's account of DIY citizenship and mere consumerism—that is, the freedom to choose products that will situate the buyer in a semiotic landscape of 'style'" (Jacka 2003, 185). This critique points out again the overvaluation of individual choice and underestimation of the realities of late capitalist consumer society. As Jacka states:

> The kind of democracy Hartley (1999) had in mind is not political democracy but semiotic democracy—what Hartley called "semiotic self-determination," also known as DIY citizenship. Democratization of semiosis leads to a "truly sovereign community," a population "among whom relationships, decisions and ideas are negotiated and arbitrated." It is the "citizenship of the future; decentralized, post-adversarial, based on self-determination not state coercion" (p. 161): a truly panglossian vision. (Jacka 2003, 186)

While Jacka applauds this panglossian vision, we would suggest that Hartley's outline of DIY citizenship is even further vulnerable to the sorts of critiques levied against the Habermasian vision of the public sphere. "Semiotic self-determination" assumes, like Habermas's public sphere, an ideal set of conditions in which every voice is welcome at the table; all voices carry equal weight; and everyone is heard on the terms of their rational contribution to the conversation. These assumptions of deliberative democracy and public sphere have been thoroughly criticized since the 1990s for ignoring the realities of social hierarchies of power that determine who can participate in public sphere debates, whose voice is recognized, and thus who is heard. A more comprehensive examination of the critiques of the public sphere is illustrative as a point of departure for thinking through the claims of DIY citizenship.

## DIY Citizenship and the Public Sphere

Concepts of deliberative democracy are frequently used as a stand-in for debate about the viability of public spheres. For Habermas, a liberal

democracy ideally requires the formation of "public spheres," sites that provide citizens space to deliberate, debate, and discuss matters of public interest outside of formal governmental processes. Habermas's first major work, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (Habermas 1962/1989) explored the development of this sphere, originating from a bourgeois liberal constitutional order that provided opportunities for critical reflection on its role in society. For Habermas, the key to a properly functioning public sphere involved spaces in which "rational-critical discourse" could take place: "The ideal of the public sphere calls for social integration to be based on rational-critical discourse. Integration, in other words, is to be based on communication rather than domination. 'Communication' in this context means not merely sharing what people already think or know but also a process of potential transformation in which reason is advanced by debate itself" (Calhoun 1992, 29). However, critiques and debates about the viability of a democratic public sphere continue; Nancy Fraser's renowned critique of the Habermasian ideal serves as a case in point (Fraser 1990). Fraser focuses her criticisms on the actualities of power relations, exploring inclusion and exclusion as they play out in Western societies. She notes how the Habermasian ideal of a public sphere is founded on strict divisions of public and private, a division that has served historically to exclude women's participation in the public sphere. The gendered requirements to serve in the private domestic sphere as mother, wife, and domestic laborer have served to disenfranchise women from deliberative democracy. More fundamentally, Fraser criticizes the Habermasian public sphere as requiring problematic processes of consensus building, processes that require agreed-upon definitions of common concerns and the bracketing of identities as well as ignoring systematic inequalities within the artificial zone that constitutes the space for deliberative debate. Additionally, achieving consensus and deliberative democracy in the Habermasian public sphere privileges rational (i.e., masculine) as opposed to emotional (i.e., feminine) discourse and debate, which further diminishes women's legitimacy as authoritative participants. Finally, Fraser illustrates how assumptions about participation in the public sphere overlook hegemonic exclusion and dominance that institutionally disenfranchise and silence perspectives that don't reflect normative or dominant cultural values.

Fraser's critique (alongside more recent discussions by political theorists including Jacka [2003], Gitlin [1998], and Mouffe [1992]) reveals the stark realities surrounding citizenship: namely, clear distinctions about who is

allowed to participate in public debates, who is heard, and when, how, and whether the concerns and experiences of non-dominant groups and classes hegemonically erased, denied, and silenced are included. These critiques of oversimplified invocations of public sphere participation serve as an invaluable warning while more robust conceptions of DIY citizenship are further developed.

The liberal individualism presumed by ideals of the public sphere is further challenged by the more recent work of Hardt and Negri (2001, 2005), and in particular by their defining of the notion of the "multitude," a concept they see as providing an alternative to traditional notions of political power that presume shared identities, goals, or necessary unity:

> One of the recurring truths of political philosophy is that only the one can rule, be it the monarch, the party, the people, or the individual; social subjects that are not unified and remain multiple cannot rule and must be ruled . . . The concept of the multitude challenges this accepted truth of sovereignty. The multitude, although it remains multiple and internally different, is able to act in common and thus rule itself. Rather than a political body with one that commands and others that obey, the multitude is living flesh that rules itself. (Hardt and Negri 2005, 100)

The concept of the "multitude" as differentiated yet able to "act in common and thus rule itself" resonates with characterizations of the DIY communities studied by the scholars in this volume. However—as another warning to those developing new conceptions of participatory DIY democracy—Hardt and Negri come disturbingly close to erasing difference for the sake of defining the multitude: "When we say that we do not want a world without racial or gender difference but instead a world in which race and gender do not matter—a world in which they do not determine hierarchies of power—this is a desire for the multitude" (Hardt and Negri 2005, 100). Despite their desire to avoid the liberal democratic model of "bracketing identities," upon which a Habermasian public sphere is predicated, there is no clear sense of how in fact a model of participatory democracy in which race and gender do not matter might function.

A further troubling matter is Hardt and Negri's category of precarious and affective labor, which potentially ends up designating women's unpaid labor as of a different order than the labor recognized in the (masculinized) public sphere. As renowned autonomia theorist, anarcha-feminist scholar, and activist Silvia Federici writes: "My concern is that the Negrian theory of precarious labor ignores, bypasses, one of the most important contributions of feminist theory and struggle, which is the redefinition of work, and

the recognition of women's unpaid reproductive labor as a key source of capitalist accumulation" (Federici 2008).

Given the challenges, we suggest that the work of Jacques Rancière, among others, provides a valuable direction for theoretical exploration of new understandings of public sphere and participatory democracy. Of particular concern in the work of Rancière are the "unheard," those who have "no part," those without a so-called political voice in democracies. The moments of interruption or intervention—the eruption of the unheard into what he terms the "police order"—is precisely what constitutes "politics" for Rancière. Politics are the dynamic events and exchanges in which those without voice in the dominant culture express and make heard, or "sensible," what has been repressed, precluded, or censored within political regimes. For Rancière, disagreement signifies the importance of radically different registers in which citizens make sense of their world and of power and authority—different registers that, unlike those in the Habermasian ideal public sphere, cannot always be rectified for the sake of consensus and agreement. Quite significantly (though the purview of this introduction does not permit full explication), the value of engaging Rancière's understandings of the representational regime as contrasted with the potentially more radical aesthetic regime (2004, 12) is that it effectively describes the significance of DIY citizenship as a hybrid of art and politics, a mode of political poesis that can challenge stratified political structures that exclude and that seek to render interruptions and interventions "unhearable."

According to Rancière, "Political activity is whatever shifts a body from the place assigned to it or changes a place's destination. It makes visible what had no business being seen, and makes heard a discourse where once there was only place for noise" (1999, 30). This "politics of aesthetics" Rancière terms the "distribution of the sensible" (2004, 7). We suggest that DIY citizenship and critical making enact this "redistribution" of the sensible, thereby pointing toward "disagreement" and the "politics of aesthetics" as an extremely rich theoretical framework for future explorations of DIY citizenship.

## Reclaiming DIY Citizenship

Despite its vulnerability to these myriad critiques, the concept of DIY citizenship is creatively augmented and amplified by different authors in our volume. Rather than come to an authoritative definition of the term, the authors collectively address a range of related questions.

### Key Questions for Understanding DIY Citizenship

While the book is divided into four sections, there are also six key questions that thread across the chapters.

*Who is the DIY citizen?* A number of chapters explore the subjectivities of DIY identity. Using examples from actual communities and contexts, the authors explore the nature of DIY participation and action. Rather than define an authoritative description, the chapters together create a composite image of the activities, memberships, and cultivations from and through which the DIY citizen emerges. For example, in "Fan Activism as Participatory Politics: The Case of the Harry Potter Alliance" (chapter 3), Henry Jenkins explores the identities and subjectivities of the DIY citizen. He describes some of the campaigns of the Harry Potter Alliance, a nonprofit organization started by fans. As Jenkins describes, this group utilizes metaphors and images from the Harry Potter books to create a platform for civic engagement. Organizing online through websites and fan fiction forums, members of the group rewrite aspects of Harry Potter to instigate political change. These DIY citizens blend their identities as fans and their identities as activists in order to form hybrid subjectivities.

*What are the tools and practices of DIY citizenship?* Across the volume, authors provide specific examples of DIY activities and the objects, systems, and technologies that facilitate practices of participation in social systems. For example, in "The Growbot Garden Project as DIY Speculation through Design" (chapter 17), Carl DiSalvo explores "DIY speculative design" as a form of political action. Using his experiences with the growbot project from the 2010 01SJ Biennial, DiSalvo reveals how tinkering, redesigning, and imagining serves as a novel way for publics to engage materially in important social issues, but also raises the question about what should come after these imaginations. Is speculation enough or is a further step necessary?

*Is DIY essentially liberatory?* This question signals a debate we hope readers will consider throughout their reading of this book. A number of chapters detail how and in what ways DIY fails to live up to its hype, illustrating such concerns as the hidden labor of DIY, technological determinisms frequently assumed, as well as the corporate interests embedded within many of the platforms and systems appropriated for DIY purposes. For example, chapter 18, "Doing It in the Cloud: Google, Apple, and the Shaping of DIY Culture" by Michael Murphy, David J. Phillips, and Karen Pollock, foregrounds the quid pro quo of social media. Through a close examination of the agreements people must sign to make use of their respective systems,

as well as the ways user-created data is utilized by Apple and Google, the authors explore how these private companies shape DIY culture. The authors illustrate the contradictions and tensions between public and private infrastructures, which are nonetheless productively utilized for DIY activities. Through their examinations of these conflicting values embedded in primary systems such as cloud computing, we are warned that, contrary to the opinion of John Perry Barlow, information does not just want to be free.

*What and where are the spaces and communities of DIY Citizenship?* Joshua McVeigh-Schultz's "Redesigning the Vox Pop: Civic Rituals as Sites of Critical Reimagining" (chapter 23) broadens both the idea of DIY and the concept of design through attention to what he terms "civic rituals." Situated literally in the streets, his project "Synaptic Crowd: Vox Pop Experiments" exemplifies critical making to defamiliarize the common "vox pop" media ritual (on-camera interviews with passers-by) and thereby reimagines the role of media in identity formation. McVeigh-Schultz troubles what he sees as Hartley's romanticized notion of DIY citizenship and critiques the idea of semiotic self-determination as both a fantasy and as a matter for concern.

*What are the roles of social media in DIY citizenship?* As noted in many of the chapters, participation in public debate is an important driver of DIY citizenship. In chapter 26, "Critical News Making and the Paradox of 'Do-It-Yourself News,'" Mike Ananny examines citizen journalism as an alternative to mainstream forms of media, revealing the ways publics are reconstituted within DIY journalism. Graham Meikle uses the failures of *Kony 2012* to address the possibilities and challenges of "*distributed citizenship*, in which individuals from across the globe were to engage in a collective project for political change. . . . Distributed citizenship is a political possibility of the network society in its shift from what Castells terms the space of places to the space of flows" (chapter 27). Chris Atton explores the "incorporation of media production into the routines of everyday life; the site of production in a domestic setting; and the depiction of everyday activities in the content of the media itself." His analysis of such everyday productions as the "personal home page," "perzines," and "fanzines" illustrate how these "mundane media" draw on the resources of capitalism while simultaneusly revealing the (political) identities and sociality of productions by the "silent majority."

*What is the role of making for DIY citizenship?* Many authors explore the materialities and the processes of DIY construction and demonstrate how

this work provides new modes and possibilities for political and social engagement. Steve Mann's chapter highlights practices such as "maktivism" and "tinquiry," illustrating these novel conceptualizations with critical projects of his own design and making such as the "Griefcase" and the "License to Sit." In "Woven Futures: Inscribed Material Ecologies of Critical Making" (chapter 13), Daniela K. Rosner and Miki Foster link work with electronics to knitting practice, examining how participants in an afterschool program use shared making as a way to overcome social hierarchy and discover shared ground for collaboration. Here, making as a critical activity is foregrounded and its connection to politics as social relations is demonstrated. As Kate Milberry writes: "Activist-designed and built technologies are therefore disruptive tools that destabilize trends toward a closed, privatized, economically striated and commercially oriented Internet. By designing software that meets their practical needs and social justice goals, tech activists contribute to the democratization of the Internet. As a 'practical means of resistance,' this kind of critical making can be deployed in the blind spots inherent in systems of surveillance and social control, where there is always 'space to manoeuvre' (Marx 2003, 372)" (Milberry, chapter 2, this volume). DIY practices ideally create "maneuvering" space, encouraging us to rethink binary distinctions such as cultural/political and amateur/professional that reductively constrain the ways in which scholars across the arts, humanities, and social sciences understand the relationship of individuals and networks to the boundaries of cultural production and politics. Understanding these boundary-blurring practices as constitutive of DIY citizenship is, we suggest, of paramount importance.

## Conclusion

New forms of transnational, cosmopolitan, or global citizenship are increasingly the focus of much scholarly and popular attention. As noted by Stoker et al. (2011), "The technologies of globalization have facilitated new forms of political expression and created new or alternative public spaces and possibilities of citizen engagement" (n.p.). DIY citizenship, we suggest, can be understood as a twenty-first-century amalgamation of politics, culture, arts, and technology that in turn constitutes identities rooted in diverse making practices. In contrast to earlier studies of fans and consumers that positioned them as passive receivers of popular culture, technologies, and media, DIY is characterized by its emphasis on "doing" and the active roles of interventionists, makers, hackers, modders, and tinkerers. Dunbar-Hester's analysis of the indy radio collective Pandora illustrates this explicitly:

The media activists sought to cultivate a particular mode of "maker" identity. They presented technical engagement as a strategy for leveling expertise and increasing political participation. In this, they recognized that tinkering is as much a form of cultural production as a technical one; the activists sought to produce not just technical artifacts but egalitarian social relations by eroding boundaries between experts and laypeople. Activists suggested that demystification of technology through widespread hands-on making could provide an alternative to prevalent technical cultures in which authority is not distributed, but resides exclusively with experts. (Dunbar-Hester, chapter 4, this volume)

One may envision the DIY citizen on a continuum, with one end representing the overtly political/interventionist and the other end representing those simply channeling creativity and a kind of poesis into everyday practices. In this collection of essays, the individuals and groups described by authors for the most part understand their work to be socially interventionist. Through diverse interventionist practices of design, development, and exchange, DIY citizenship challenges traditional divides between production and consumption and corresponding power differentials built into technologically mediated societies.

Such work, seen en masse and across different material and social domains, provides important guidance for questions regarding public participation in both politics and technology. Langdon Winner has noted, "Because technological things so often become central features in widely shared arrangements and conditions of life in contemporary society, there is an urgent need to think about them in a political light" (Winner 1992, 343). Winner deplores the lack of public engagement around the politics of mediated society, noting that most moves in this direction fall into a "technocratic" pattern. He follows with the important question: "How can and should democratic citizenry participate in decision making about technology?" (343)

The contributors in this volume turn Winner's question on its head, asking instead, "How do we engage with society politically through technology?" Their answers chart a space for DIY citizenship, a productive practice in which ethical and social interventions cross through a number of different modalities and materialities. In their discussion of how citizens can resist and take control of the ways that ID cards and sensitive personal information are required and used by the state and corporations, McPhail et al. bring attention to the concept of "responsibility":

*DIY citizenship as we practice it takes seriously the concept of responsibility*—not just the responsibility to follow the rules and accept legitimately imposed limits on our participation in society, but *the responsibility to hold our governments accountable for*

*making rules to reflect the kind of society in which we want to live*. DIY citizenship as we approach it in our research about identification and identification documents is active, engaged, and sometimes critical citizenship. It has the potential to reveal and push the kinds of societal limits that we often take for granted. (McPhail et al., chapter 5, this volume; emphasis added)

Finally, given the intersecting media and economic landscapes that increasingly redefine the traditional identities associated with nation-states, "distributed citizenship" as introduced by Graham Meikle (chapter 27, this volume) suggests a promising direction for rethinking the historically overdetermined meanings of "citizenship."

The social implications of the shift to DIY citizenship are readily apparent. We contribute this collection of critical theorizations of making, in hopes of providing a starting point for others to extend such practices and as a foundation from which to examine the implications of DIY citizenship.

## Notes

1. For an overview of the claims and critiques associated with democracy and social media, see Boler 2010.

2. We should also add that dominant institutions may also be working to appropriate the processes and outcomes of DIY activities. A case in point is the recent funding of Maker activities by DARPA and the participation of military personnel at the New York Maker Faire 2012 depicted in figure I.6. Such instances point to a somewhat different politicization of DIY than is typically considered by DIY enthusiasts and indicate a need for increased reflection of the type demonstrated by some chapters in this collection.

3. DIY Citizenship: Critical Making and Social Media conference, November 12–14, Toronto, Ontario. Video archive at http://www.diycitizenship.org.

4. These ethics of questioning educational practices and values come forward in this collection most prominently in part II.

5. For more on zines in this volume, see Chidgey, chapter 6, and Reitsamer and Zobl, chapter 24.

6. For more on craft in this volume, see Orton-Johnson, chapter 9, Kafai and Peppler, chapter 12, and Rosner and Foster, chapter 13.

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