Introduction

Interrogating and Integrating Access

In January 2011, comedy duo Rhett and Link (Rhett James McLaughlin and Charles Lincoln “Link” Neal) released a YouTube video entitled “CAPTION FAIL: Lady Gaga Putt-Putt Rally.” To produce this video, the duo wrote and performed a short sketch in which one told the other, over the telephone, about his plans for an upcoming Lady Gaga concert. They then uploaded the video to YouTube and, using YouTube’s autocratic feature, downloaded the captions generated for the video. Using those captions as a new verbal script, Rhett and Link performed the sketch again, retaining the original blocking and emotional performances. They repeated this process a second time, performing a third version of the sketch based on captions of the captioned sketch. Finally, all three performances were played back to back, with the words being performed at any given time displayed at the bottom of the screen. The eponymous line—“I got tickets to the Lady Gaga putt-putt tournament and monster rally” (already a tongue twister!)—became “Advantages to the Lady Gaga puppet tenemos a drug right,” which in turn transformed into “Advantages of the Lady Gaga puppets in a lot of Iraq.”¹ The video functioned comedically both through the increasing surrealism of the scripts and through the unexpected meanings and juxtapositions created by the technological process.

Since the release of “Lady Gaga Putt-Putt Rally,” which now has had more than 2.5 million views, the duo has released six additional “CAPTION FAIL” videos, in addition to producing numerous other videos, advertisements, and a television show for cable channel IFC. McLaughlin and Neal could easily be considered an example of the possibilities of online participatory cultures, which offer “low barriers to creative expression and civic engagement, strong support for creating and sharing one’s creations, and some type of informal mentorship.”² Viral videos,
and the YouTube community, are commonly invoked examples of participatory culture, and McLaughlin and Neal’s work fits into the zeitgeist of online sketch comedy. ³

However, to look at this series and see only a case study in the potentials of online participatory culture is to overlook the very specific technological context for these videos. In the opening moments of the first “CAPTION FAIL” video, Rhett and Link briefly explained YouTube’s autocaption feature, stating, “The whole process is automated. The computer listens to the video, and displays what it thinks it hears. So, the results are always off, and usually pretty hilarious.”⁴ They compared the video to playing a game of “Telephone” with the software, in which misunderstandings that came from this speech-to-text technology were captured and displayed. Speech-to-text technology has long been highly desirable in assistive technology for d/Deaf⁵ and hard-of-hearing audiences, as the ability to automatically create captions in real time offers the possibility of greatly increasing access to a range of audiovisual materials. However, it is also an incredibly difficult software to develop, with even leading technologies such as Apple’s personal assistant (Siri) and the dictation software Dragon Naturally Speaking regularly misunderstanding content.

These videos skewer autocaptioning and speak to the ways in which digital media technologies have not solved problems of access and inclusion for people with disabilities and may even have exacerbated them. YouTube’s autocaptions could increase the quantity of captioned content on the site, offer more resources for d/Deaf and hearing-impaired viewers, and increase the potential for automatic translation of videos into other languages. In a 2009 press release, “Innovation in Accessibility,” YouTube claimed to be “making video accessible everywhere (web, mobile, TV) and to everyone (other countries, languages, alternative access modes).”⁶ Google’s explanation of autocaptioning acknowledges that captions would be imperfect but asserted that they were “better than nothing.”⁷ From the point of view of viewers with auditory disabilities, however, as clearly demonstrated in the “CAPTION FAIL” videos, autocaptions may, in fact, have been worse than nothing.

The humor and technological failures of this video reveal how digital media cultures take for granted an able-bodied user position, potentially restricting access for users with a variety of disabilities. In the
absence of captions, d/Deaf and hard-of-hearing viewers are limited in their ability to find and view audiovisual content. In the absence of audio-description, in which video images are described aurally, blind and visually impaired users are prevented from accessing the content of audiovisual material. In more mundane contexts, the lack of proper HTML attributes can render web forms impossible to use by people who rely upon screenreaders, input devices other than a point-and-click mouse, or other assistive technologies. This can interfere in all kinds of life activities, from online shopping to social networking.

In each of the cases described, one might say that technology not only fails to “fix” disability but in fact creates it, as these technological barriers function to exclude certain bodies from full participation. Not only do those who are easily identified as having a disability due to a specific medical condition or embodied state suffer from disabling technology, but so may technology create new disabilities. Feminist disability scholar Susan Wendell eloquently explains that the inability to walk several miles at a stretch is not considered a disabling impairment in much of Western society, whereas it could be seen as such in a different cultural context in which walking to and from, say, a distant well is an expected part of daily life. Similarly, digital media create new interfaces, actions, and expectations for human bodies and may create disability both through the pressures exerted on bodies (fatness, carpal tunnel, eye strain) and through the social pressures that increasingly construct the functional life to be the technologically competent life, rendering those who do not master these technologies effectively disabled in ways that would have been inconceivable thirty years ago. Perhaps as a result of these and similar exclusions, people with disabilities are less likely to be internet users than the U.S. population at large; as of 2010, only 54 percent of Americans with disabilities used the internet, as compared with 81 percent of able-bodied Americans.

Such production of disability through cultural contexts and material conditions is illustrative of the social model of disability. Arising from activist contexts and forming a foundation of disability studies, the social model of disability argues that physical impairments are not the cause of disability, but a society that cannot accommodate physical difference produces disability as an experience of oppression. Unlike earlier understandings of disability as an individually embodied
tragedy (the individual model), as a diagnosable physical condition (the medical model), or as a site of collective pity (the charity model), the social model asserts that “it is society which disables physically impaired people” and positions people with disabilities as an oppressed class. Media technologies—like other material, institutional, and structural phenomena—can thus produce barriers that render forms of embodiment disabling and contribute to ideologies of ability that devalue deviations from a normative form of embodiment and subjectivity.

This book builds upon existing work on disability and online media by engaging with both critical disability studies and contemporary cultural studies of media not simply to produce new theoretical applications but to suggest ways in which these fields might fundamentally inform one another. It is no longer enough to discuss how media or technology are disabling, following the social model; it is time to delve into the ways in which the intersection of technologies, bodies, and cultures may both reproduce and trouble existing cultural norms and relations of power. Though disability is an understudied phenomenon within all sites of media studies, I do not adopt a disability studies framework merely to add another identity-based lens through which to approach the study of media. Instead, I argue that at the intersection of disability and cultural studies we can find new questions. Centering disability in the study of media ought to upend conventional wisdom, challenge traditional categories, and introduce previously invisible considerations. Through the endless diversity of disability, we may be forced to consider the endless variation of humanity at large; once we have done so, discussing “the audience,” “the meaning,” or even “the production” of media content or technological tools becomes unthinkable. Disability upends universalism, requiring new, robust means of studying a mediated world in which media’s access, use, and meaning occur in diverse contexts and infinite variations.

Upending lingering universalism within studies of media is especially necessary at the current moment, characterized by the blurring of audience and producer, professional and amateur, gift and profit, freedom and control, individual and collective, online and off. Much current scholarship in media and cultural studies wrestles with what has been called participatory culture; in these online spaces, communities can form, creative work can be shared, individuals can oscillate between cre-
ating and consuming content, and media industries can engage with (or take advantage of) the increased interaction among audiences. Participatory culture offers an attractive vision of a mediated future in which increased access to cultural production, political participation, and social collaboration produces more just, egalitarian forms of culture.

The exclusion of people with disabilities from online media and attendant participatory cultures is particularly troubling given the potential of these spaces to foster engaged, active citizens of the world. Much has been written about the democratic potential of online cultures, whether as potential public spheres or civic cultures or through other relationships of public, private, state, and corporate interests. However, as the physical world has amply demonstrated, a public sphere founded upon exclusions is capable of gross oppressions. This is why it is imperative to consider the place of access and inclusion in emergent media cultures, particularly those in which scholars celebrate the benefits of production, “produsage,” collaboration, spreadability, interactivity, or the social. These celebrations too often take access for granted, and thus cases in which access is absent reveal the fissures in new media theories. After all, if a so-called participatory culture only facilitates the participation of those who are already privileged, then its progressive potential is unrealized, if not transformed into a regressive affirmation of existing power structures.

Studying digital and participatory media in very specific contexts, such as that of disability in the United States, is crucial to ensuring that these media do not simply reproduce dominant ideologies, identities, and neoliberal economic and political structures. Such specific scholarship, whether demarcated by age, nation, sexuality, ability, use, or other markers, is necessary to the continued utility of theories of media participation because it destabilizes the unitary user, prevents flat or hierarchical conceptions of uses, and engages with the technological and industrial components of digital media sites, services, and devices. If “participatory culture is being co-created every day, by vloggers, marketers, artists, audiences, lawyers, designers, critics, educators,” and others, then the barriers to technological and cultural access, including barriers of disability, must be addressed so that such co-creation does not occur without the input—or against the interests—of less powerful populations. Particularly in relation to the political dimension of par-
participation, participation’s value, in relation to its political dimensions, lies in the ability of individuals to access and achieve desired goals and act in ways that may be publicly visible and thus influential. This book shares in these attempts to preserve the progressive public values of participation and to consider participation’s relationship to economic and political structures under neoliberalism through the study of specific contexts, users, and uses.

This book tells stories about digital media use by people with disabilities and contextualizes them with analyses of the surrounding technologies, policies, and cultures of digital media accessibility. I suggest that by reconsidering digital media and participatory cultures from the standpoint of disability, we may better see the omissions and exclusions in these often-celebrated spaces and their theorizations and come to understand access as fundamental to all studies of media. Throughout, my argument is threefold: First, access must be understood not in terms of availability, affordability, or choice but in terms of an individual’s ability to engage meaningfully with a medium/technology and its content; second, a hegemonic user position is created by digital media technologies and their usages, and this user position is not neutral but perpetuates an able-bodied norm and contributes to inequalities of access; and third, studying access in the context of disability and digital media reveals the importance of an intersectional analysis of access for recognizing the neoliberal imperatives in contemporary social, economic, and political life and for opposing them through variable, coalitional politics and collaborative projects.

Thinking through Access

Colloquially, access is used to talk about a wide range of experiences. We may access our email, gain access to restricted areas or information, or win an all-access backstage pass. Accessibility, similarly, is regularly employed to refer to the ease of access, the user-friendliness of a system, or financial affordability. It is not uncommon to hear references to the increased accessibility of the internet, of digital media production tools, or of educational resources in popular reporting, news, informal discussions, and even academic work that intends to indicate an expanded availability of a particular valued resource. Such usage of accessibility permeates contemporary culture with little, if any, connection to
disability. The very discursive flexibility of access has too often allowed it to pass unexamined, conferring cultural value even as it may constrain civic, cultural, and technological possibilities.

One unifying feature of all of the uses of access is that they convey a positive outcome—access is routinely understood as an individual benefit or a public good. A second commonality lies in the tendency to talk about access or accessibility as something that can be possessed or “had.” These assumptions must be challenged in order to build a robust theorization of access, as they threaten to constrain analyses through their positivist slants. Thinking critically about access requires consideration of it as a relational, unstable phenomenon that both grants benefits and interpellates individuals into larger social systems that may be empowering, exploitative, or both.

The benefits of access to computer and other forms of digital media have routinely been tied to social equality, political participation, and economic gain. Nico Carpentier posits that access is a necessary precursor to participation in media and, from there, in democratic civic structures. Access to participation in mediated culture can support the public values of equality, democracy, or cultural competency. Regarding disability in particular, access is a kind of public good, tied to the formation of a “newly imagined and newly configured public sphere where full participation is not contingent on an able body.” Access can thus serve as a means by which to discuss and promote democratic civic engagement and cultural inclusion, an ideological use that recurs in many debates surrounding media policies, disability rights movements and associated policies, and media and disability studies themselves.

The political potential of participatory culture demonstrates both the appeal and the dangers of this theoretical framework. It offers an attractive vision of a near future, or even present, in which increased access to cultural production, political participation, and social collaboration produces more just, egalitarian forms of culture as well as new forms of political engagement. This is a world in which, theoretically, anyone can potentially be heard, transform the status quo, and build upon the work of others outside of longstanding social and political hierarchies. In short, participatory culture can be tied to the development of progressive civic cultures and forms of engagement, in which case it demands theoretical expansion beyond the limited figure of the “user.”
However, this understanding of participation requires deeper consideration. As Carpentier argues, we cannot assume that increased participation is always beneficial, as this assumption ignores the ways in which media participation is linked to democracy. This de-articulation is at the core of critiques of participatory culture theory, which often indict its acceptance or encouragement of global capitalism, its conflation of different participatory spaces and practices, and its limited global and demographic applicability in the context of glaring digital divides between and within national contexts.

*Participation* can also prioritize neoliberalism, markets, individualism, and consumerism over the kinds of public values or civic dispositions discussed above, in which case it demands grounded study of the specific contexts, technologies, and uses in question to prevent overgeneralization. Rather than refer to equality, it can be invoked in media policy contexts in order to justify expanding consumer frameworks and serving the interests of commercial media conglomerates. There is a tendency for access to reinforce individualism and consumerism within a marketplace of optional services, counteracting competing values of “equality, democracy and citizenship.” In their place, people are called upon to act as “consumer-citizens” and “expected to think of themselves as consumers of ‘products’” and to interact within a marketplace of such products and services.

Given the dual connotations of *access* described above, the study of mediated culture must attend to what is being accessed, and for what purposes, prompting ongoing critique of the political dimensions of access and its instantiation via cultural discourses. To preserve the value of *access* for progressive political purposes, it is not enough to conceive of it in terms of availability, affordability, and choice. These concepts, though they can support public values and civic cultures, slide too easily into their neoliberal counterparts—passivity, marketplaces, and consumerism. In the combination of these discursive elements, the discourse of “media access” appears as a synecdoche for the functions and ideologies of media in a capitalist democracy; it is closely tied to both public values of equality and participation, as well as to neoliberal and consumer-driven forms of identity and business. To move beyond the deceptive positivism of access requires attention to uses, and the conception of access as a phenomenon-in-progress rather than as an end state.
Thinking through Use

The ability to participate culturally and civically depends not only on the availability, affordability, or choices provided but also on the fundamental ability to meaningfully use a given medium or technology. As communication and information scholar Leah Lievrouw has argued, “[A]ccess depends on people’s individual capacities to convert availability” into something usable. Without the capacity to make a telephone call, surf via a web browser, or remote-control a television, there is little opportunity to glean meaning from content, to interpret and engage with that content, or to respond to it or produce new content. Yet, access as use has been routinely overlooked in discussions of media access and telecommunications policy, despite its necessity to the furtherance of public values in this arena. The study of disability, conversely, forces consideration of access at the level of use; though radio, for instance, offered information to “shut-ins,” those who could not see or manipulate the dials continued to lack meaningful access to the full range of content and the full experience of the medium because they were materially excluded from some of its uses.

Access must encompass use, and it must also be conceived of not as an object or state of being but as what disability scholar Jay Dolmage refers to as a “way to move” in the world. It is not an end goal but is a process of fits and starts, accommodations and innovations, learned skills and puzzling interfaces. As Margaret Price indicates in Mad at School, an exploration of mental disability and academia, access as a way to move does not require a set of specific practices or a linear progression but entails the creation of multiple paths along which people may move toward access. Access, here, becomes a resource that is drawn upon not only by people with disabilities but by all participants; the conditions of access allow for certain possibilities, and these scholars call for expanding the range of possibilities. Canadian gender and disability scholar Tanya Titchkosky expresses this eloquently in her book The Question of Access. She writes that “anything said about access can be read for how it reflects a host of questions: Who has access? Access to where? Access to what? When? Every single instance of life can be regarded as tied to access—that is, to do anything is to have some form of access.” Similarly, Titchkosky observes that only people with disabilities are regularly
discussed in regard to access needs; people presumed not to be disabled are presumed not to have needs regarding access. By figuring access as a relational analytic, potentially relevant to all people, Titchkosky opens the door to more nuanced study of access and its value, as well as to the use of dis/ability not only as a topic of study but as a lens through which to study a variety of cultural artifacts and practices. This perspective is echoed in what disability scholar Alison Kafer conceives of as a “political/relational model of disability” in which disability is produced through the relationships of bodies, minds, and social and physical environments; access is produced and made meaningful through similar interactions.

These arrangements are inherently unstable, and the naturalization and universalizing of access as commonly done in studies of media, digital culture, and software interfaces renders ability invisible and pathologizes disability as an individual failing that requires accommodation to rectify. Throughout this book, I argue that access is not a matter of disability but is a means through which ability and disability are made meaningful and influence opportunities for broader participation in culture and civic structures.

Access is not a single thing; it is produced in the intersections, and articulations, of diverse realms of study. Industries and manufacturers, identity groups and content producers, individuals and public institutions may all be involved in the production of access at a particular time, place, and social location. Access is irreducible, but it may be studied at a macro level through the search for articulations between the meanings, processes, and practices that characterize access to a given goal or experience. As explicated by British cultural studies luminary Stuart Hall, an articulation is “the form of the connection that can make a unity of different elements, under certain conditions. It is the linkage which is not necessary, determined or absolute and essential for all time.” Thus, the study of access benefits from a cultural studies perspective in which connections are crucial, but mutable, and political consequences are felt as a result of a range of social practices regardless of their alleged intention.

In the articulations that constitute access (or the lack thereof), we can see possibilities for and limitations on potential participation in cultural and civic communities. Exclusions from participation ought to be understood as politically problematic, exercises of power in which the ar-
rangement of culture, bodies, and technologies closes doors rather than opens them. If, as I argued earlier in this Introduction, the progressive value of access lies in its connections to participation, democracy, and equality, then deeper understandings of how access may work and how it may be fostered are crucial to the ongoing study of media.

Digital Media Accessibility: A Cultural and Disability Studies Approach

The adoption of a relational, use-based understanding of access enables the study of previously opaque areas of mediated culture. Accessibility is not a typical area of investigation for scholars of film, television, digital media, or even media industry or policy. It is, quite literally, a mediation between means of access and interacting with media forms and content. As such, this book is particularly indebted to the theoretical and methodological ecumenicalism of cultural studies, which has enabled me to identify a particular juncture at which issues of disability, identity, access, cultural and political participation, and neoliberal modes of being coalesce in digital media texts, artifacts, and practices.

Construction of this area of inquiry is based upon two ideas: disability and accessibility. For the purposes of this book, disability is understood to be any physical or mental condition that makes it difficult, if not impossible, to utilize default social, institutional, or physical structures without some form of accommodation. This definition makes it possible to discuss disability as an analytic category; when discussing disability as identity, I rely upon individuals’ self-identifications, as the claiming of disability identity is a personal and political decision. Throughout, I primarily employ “people first” language, generally preferred in the United States, referring to “people with disabilities” and other permutations of phrasing that prioritize personhood before ability status. I have also consciously adopted a pan-disability perspective because of its prominence in disability studies and its utility in liberal identity politics, and because it tends to be how accessibility policies are written. Accessibility in this text refers to the ability of a person with one or more disabilities to make meaningful use of a media technology, whether through assistive technologies or through modification of mainstream technologies. The accessibility of a given digital media platform or text relies
upon its code, and in turn upon professional and amateur developers, the offerings of popular hardware, websites and software packages, and the policies that govern digital media accessibility. Thus, it is impossible to locate accessibility in the context of a single industry. Similarly, accessibility cannot be simply defined for all users; different impairments, different technological contexts, and even different times of day may result in users’—or even a single user’s—having very different experiences of accessibility. As I was told many times in conducting this research, one cannot declare that a technology “is accessible.” Instead, one might say that a technology “is accessible” to some degree, for some people, in particular circumstances. The irreducibility of accessibility at both the sites of production and reception, industry and audience makes for some tricky linguistic turns throughout this text. However, this is also precisely the site of the theoretical richness of accessibility, in that this concept refuses to be flattened, unified, or separated from the intensity of human variation that gives it purpose.

Disability and accessibility come together in this project through experiences of digital media accessibility, and particularly through the origins, development, and influence of web content accessibility. Web content accessibility entails the provision of accessible online content, originally through use of HTML and CSS, though now this concept extends to scripting languages and dynamic web content. The Web Content Accessibility Guidelines 1.0 (WCAG 1.0) were released by the World Wide Web Consortium (W3C) in 1999. The W3C is a nonprofit organization dedicated to the creation and promotion of web standards; it acts as a kind of governing body or locus of best practice for web-based technologies. As such, it does not release “policies” or “standards” but “guidelines” that are entirely voluntary. The second major governor of web accessibility in the United States is Section 508 of the Rehabilitation Act of 1973 (as amended in 1998), and its attendant documentation. Often called simply “508,” this law requires that federal government agencies and their contractors, as well as organizations that receive federal funding (including, for example, universities) make their web content and other information technology accessible to employees and members of the public with disabilities. The binding standards for 508 compliance were released in 2001 and are largely based on those of WCAG 1.0. Finally, I look to WCAG 2.0, an updated set of guidelines
released by the W3C in 2008, with a new focus on technological interoperability beyond HTML, which has led it to be adopted in many contexts that move beyond the World Wide Web. As of 2015, the Section 508 standards are undergoing a substantial “refresh” by the United States Access Board, which will bring them into alignment with WCAG 2.0 and other relevant international accessibility rules.

Though technological details and affordances are important to this work and are referenced throughout, this is not a story of technological artifacts. Rather, I focus on the ways in which digital media accessibility for people with disabilities has been constructed, often in opposition to mainstream digital media technologies and practices, and has been a site of negotiation, innovation, and resistance over the past twenty years. Although many people with disabilities use mainstream technologies, and many people use accessible features without thinking of them as such, the divergences in the meanings of disability, participation, and media reflect and establish differences in value, access, and opportunity. Following French poststructuralist Michel Foucault’s description of discourse as “a practice we impose upon” things and events, the discursive evolution of accessibility reveals the ways in which bodies, media, technologies, and identities have been positioned in relation to one another and naturalized according to particular hierarchies. In exploring the meanings attached to disability and digital media accessibility, I attend to points of disjuncture, disagreement, and negotiation in the construction of digital media accessibility.

In order to trace these discursive threads, multiple forms of evidence were required, drawn from archival, popular, interview, and ethnographic research. The archival work done for this project involved the study of U.S. legal documents, archived documentation of academic and nonprofit institutions, and trade publications from within the digital media industries. The archives of the W3C are publicly available online, as are a host of government documents tracing the progression of Section 508 standards. These sources are particularly salient because old websites, with their accessible or inaccessible code, can only rarely be found. I instead located traces of web accessibility, including advertisements, policy documents, popular press coverage, and meeting minutes. Beyond providing information about the technological development of digital media accessibility, these sources also enabled
consideration of policy, and policymaking, as a technology of power that established discourse and shaped institutions, artifacts, and behavior. Additionally, in keeping with critical cultural studies of media industries, I have consulted trade publications, textbooks, blogs, and other materials aimed at a professional audience of web developers in order to understand the ways in which accessibility was discussed among those tasked with producing it.

Second, I found and analyzed popular texts in order to better situate this work in its shifting historical contexts, as well as to gain a sense of the discourses of disability and access that circulated outside of the field of digital media accessibility. These included news and entertainment publications, television commercials, a niche market of disability publications, and historical and contemporary websites and digital media themselves. Analyzed not individually but as part of a discursive formation, these sources speak to the ways in which digital media technology has been articulated to both normate and disabled forms of embodiment.

I conducted nearly fifty interviews in researching this book. These oral history–style open-ended interviews helped to fill in gaps in available materials, give context to specific phenomena, and provide first-person accounts of digital media accessibility by people with disabilities. I benefited enormously from conversations with individuals pursuing digital media accessibility from within academia, government, nonprofit, and web development professions. These included representatives of the W3C, the U.S. government, research scholars, nonprofit employees, computer industry personnel, and accessibility consultants, among others. Additionally, I conducted open-ended interviews with selected participants from my ethnographic work in the disability blogosphere, described below.

Observing and engaging with the online activities of a disability blogosphere over nine months, between 2011 and 2012, allowed access to the writings, interactions, artistic creations, and complaints of users with disabilities. From a disability studies perspective, this work was essential to including the voices of people with disabilities, experts on their own lives. Furthermore, this kind of online ethnographic research pushes “against peculiarly narrow presumptions about the universality of digital experience.” With the goal of challenging universalism in
digital media cultures, direct research with users with disabilities was essential to interpreting the possibilities of alternative experiences.

My ethnographic research site was a dynamically constructed “disability blogosphere.” It was established using a modified form of web sphere analysis, beginning with three seed sites (Feminists with Disabilities, Disability Studies–Temple University, and Blind Photographers) and snowballing to other linked sites, including Twitter and Flickr accounts and Tumblr blogs. At the conclusion of my fieldwork, this disability blogosphere included fifty-two blogs, thirty Twitter accounts, twenty-six Flickr accounts, and eleven Tumblrs. My research took the form of participant observation, including entry into the disability blogosphere, where I maintained a personal blog for a period of time, linking to and exchanging comments with other bloggers and my ongoing participation in Twitter and Tumblr conversations with research participants. This participation was counterbalanced by ongoing detailed observation and the regular recording of fieldnotes. All participants were contacted and offered the opportunity to opt out of this research prior to its start or at any time during the research.

Ethical accountability in this work intervenes in three forms. First, in keeping with the politics of disability studies and the methods of feminist ethnography, I incorporate the voices and words of people with disabilities whenever possible; drawn from blogs, Twitter accounts, ethnographic work, and formal interviews, these perspectives are presented on their own terms. Though I may analyze or extrapolate from these statements, I try to avoid speaking for those whom this work aims to empower. Second, all use of ethnographic and interview data has been shared with participants ahead of publication, allowing them to confirm that their perspectives and meanings were preserved and to ask for alterations or omissions where these goals were not met. Finally, I hope that the language, style, and presentation of this text enable multiple entry points, from the academic to the activist, amateur, or technologist. I wish to make this book itself as accessible as possible to people with disabilities, those who work in digital media, and others who may find it useful by incorporating multiple perspectives and copious examples. This “access strategy” extends to encouraging readers to make use of online extensions of this text, in which media texts and examples are linked or displayed along with condensed explanations, additional informa-
tion about ethnographic and interview research is provided, and links to accessibility resources are offered. These resources are intended to facilitate the use of this book in teaching, learning, and implementing accessibility as a practical skill and a progressive political strategy.

Digital media accessibility in the United States serves as a case through which to investigate the ways in which discourses and material realities of disability, digital media, and access intersect to produce opportunities and exclusions, expand and contract cultural and civic participation, and challenge entrenched ways of thinking about mediated culture. The history of accessibility in the United States weaves through this text, highlighting the concerns, policies, technical innovations, and experiences that shadowed a more conventional history of the web. This is supplemented by the rich experiential knowledge of bloggers with disabilities, accessibility professionals, and other stakeholders for whom digital media access is not a thought experiment but a way of life. Digital media accessibility, access, and disability are all concepts in flux. In their movements, we can learn quite a bit about moments of media circulation and forms of embodied difference that are not often the focus of media and cultural studies.

Interrogating Access: The Whole Kit and Caboodle

The investigation of digital media accessibility through theories of cultural and disability studies reveals that access itself may be treated as an analytic framework through which to make sense of the infinitely varied articulations of media, culture, bodies, and technologies, with respect to difference, power, and democratic values. Access, as a relational and inherently unstable phenomenon, emerges in the articulations of intersectional identities, media technologies, and cultural discourses. As a result, the study of access can enable the unearthing of dynamics too often glossed over in existing methods for the study of media or disability. The study of media too often elides the moment of access; the proposed analytic framework provides a means by which to make sense of a range of cultural artifacts, practices, and interactions with respect to access. Through richer analyses of media with respect to access, media studies may gain more nuanced perspectives on the role of media in civic and cultural participation. Through studies of media access,
similarly, disability studies may find more productive ways of engaging with the technological and cultural mediations of disability experiences.

As explicated earlier in this Introduction, a robust theorization of access must draw on availability, affordability, choice, and use while integrating the relational, variable perspectives of disability rights movements and disability studies. Yet, even once that theorization is in place, employing it for the study of disability and media poses a challenge because of the branching and overlapping elements that may be relevant to a study of access. This book advances theorizations of access by building upon such theories and using research on digital media to offer a framework for conducting such study. It is a kind of “access kit,” a modular grouping of different perspectives, methods, and interrogatories that may be picked up and deployed individually or in concert.

The “access kit” is organized as shown in figure I.1. There are five categories—regulation, use, form, content, and experience—each of which contains three guiding questions. This organization emerges from the theoretical cross-pollination of circuit models for the study of media culture, from theorizations of access to information and communication technologies (ICTs), and from theories of disability and new media. Circuit models of the study of media culture were particularly influential in developing this kit, as they propose approaches to analysis of media circulation and delimit specific conjunctural spheres (production, regulation, social context, text, audience, industry, etc.) in which discursive practices converge and use those spheres as guides to this analytic method. Additionally, models of access to information and communication technologies were useful in their attention to the uses of digital media and the range of factors involved in individual adoption of technologies. Neither body of literature, however, offered both the specificity and flexibility needed to understand digital media accessibility; theories of new media—particularly those emphasizing modularity, recombination, and dynamic integration of different elements through remediation, or remixing—provided the necessary bridge in formulating this “access kit.” As software studies scholar Lev Manovich asserts, one characteristic that distinguishes new media from its predecessors is “variation,” by which “a number of different interfaces can be created from the same data” (emphasis original). The very complexity and flexibility of digital, or “new,” media thus complements and reinforces the vari-
ability of relational understandings of access and disability. New media and disability studies both speak to the variability of embodied and technological cultures, reaffirming the need for a framework of study that could address varied contexts with specificity. This, then, forms the theoretical core of the kit, with elements of circuit and ICT models incorporated to varying degrees throughout, either to enhance flexibility or to draw attention to specific elements.

The proposed “access kit” offers five categories of questions to direct researchers’ attention to particular dynamics and articulations that may arise in a given case. These are portable sets of questions, grouped within broad areas of inquiry; they are not prescriptive but suggestive of the means of study and the kinds of articulations most relevant to using access as a means of deepening scholarship related to media, disability, and possibly other phenomena and embodied forms of difference. The interrogatory kit may be understood as a set of analytic lenses, related but distinct, brought together for their utility in uncovering articulations and circulations of power within the case of digital media access for people with disabilities. The categories are conjectural, pried apart for analytic purposes, but are ultimately constructed by the researcher and always deeply connected to one another. Like taffy, the question of access is of a piece; it may be pulled in many directions, twisted, folded, and otherwise reshaped, but its holistic essence remains unchanged.

Now, a note on language. I refer to this framework as an “access kit” precisely because it is intended to increase our ability to study access and because it provides avenues by which to access particular cultural dynamics in our research. More important, however, in calling it a “kit” I am deliberately eschewing the language of models, methods, or tools. The deeply connected research perspectives discussed throughout this book do not provide abstracted representations of real-world dynamics as might a model. They do not offer straightforward, unitary theoretical perspectives or didactic instructions, as might a purely methodological text. And finally, they are not objects to be wielded pragmatically in the (de)construction of an artifact or an argument. My interest is in identifying potential avenues to enable the serious study of media access; if this union of cultural, media, and disability studies is to produce worthwhile new scholarship, it will do so through the formulation of new questions and new perspectives on old ones. Thus, in naming this framework an
An Interrogatory Kit for the Study of Access

**Regulation**
- How is a medium, and access to it, defined, and by whom, in this case?
- What are the structures that limit or expand access in this case?
- What official and unofficial sources of power exert discursive authority?

**Use**
- What is a given medium “for”? How is it meant to be accessed and used, and by whom?
- What are the assumptions or defaults of the user position in this case, in terms of bodies, cultures, and technologies?
- What alternate uses and user positions are there, and how are they found, negotiated, or discouraged?

**Form**
- By what means does one access a medium in this case?
- What material, technological, cultural, or social structures shape this medium’s material, technological, or designed components?
- How do these means of access, or structures, interact (or interface) with the bodies of those who use them?

**Content**
- What is the information, meaning, or experience being pursued and why?
- What are the cultural values surrounding that content?
- How does this content, as a set of motivations and meanings, relate to the form in which it is delivered or received?

**Experience**
- How is a medium experienced and defined by various groups or individuals, in relation to particular embodied identities, material forms, or social contexts?
- What are (some of) the variations in access — to content, via technological form, in regulatory definition, or in terms of use — revealed by experience?
- By what processes, and in what contexts, can access be taken advantage of or extended?

Five categories, with three questions each, that can guide the study of access in a cultural and disability studies framework.

interrogatory kit for the study of access, I intend to indicate that it is an assemblage of items (or, in this case, ideas) that are brought together for a purpose, but that may be utilized flexibly as needed or desired.

Further discussion, perhaps, is useful here. Many groups of objects are referred to as kits: travel kits, first-aid kits, model airplane kits, kits for specific craft projects (everything you need to build a ship in a bottle!), survival kits, and so on. In all cases, the word seems to retain reference to a grouping of supplies, related but distinct, brought together to serve a common purpose. The small sewing kit seen in figure I.2 is a useful visualization. Its contents are diverse—scissors, safety pins, needles, straight
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A photograph of a sewing kit, with scissors, thread, and measuring tape. Like many kits, this is a collection of disparate objects united by a stated purpose but available for repurposing.

pins, thimbles, a tape measure, thread, and fabric—and these contents can be variously combined and utilized. Though they share a larger purpose—the joining of materials or creation of new articles—the contents of a sewing kit are not always equally useful and may be recombined in numerous ways as called for by the situation. The use of this sewing kit for affixing a button to a sleeve is quite different from how it might be employed to sew a new garment, and both uses are different still from how the contents of the kit could be reappropriated and used for unforeseen purposes, such as medical stitches, punk rock appropriations of safety pins, or the restorative surgery that can rejuvenate a bedraggled, much-loved stuffed toy. Kits, then, are brought together to serve a purpose but are not limited by that purpose; their contents retain individual characteristics and are open to a range of possible use. This scholarly kit, by extension, is constructed in service of a given purpose (the study of media access) but is not reducible to that purpose and is open to recombination and modification as
needed. This flexibility and theoretical openness is particularly appropriate to the project of cultural studies, in which theory and context are “mutually constituted, mutually determining” and questions inevitably lead to the strategic use of theory and method.

Over the course of the following chapters, I deploy the “access kit” to analyze digital media accessibility in relation to ideologies of ability, neoliberal contexts, and cultural and civic participation. The specific underpinnings of each category, and its questions, are explored in greater depth within those chapters. For now, simply remember that these categories are intended not to reveal the “truth” of any kind of media access but to reveal tensions, power dynamics, and articulations that might otherwise be invisible. Each has been selected for its ability to raise distinct (though always interrelated) lines of questioning. In this spirit, each category is set in motion through an interrogatory, a set of questions that can guide research. Methods, theories, and possible sources of evidence are also discussed in relation to each category in subsequent chapters, though these are obviously not exhaustive possibilities.

Regulation

Chapter 1 begins with the questions grouped under “Regulation,” exploring the discursive and policy developments of digital media accessibility. The questions guiding this chapter are as follows:

How is a medium, and access to it, defined, and by whom, in this case?
What are the structures that limit or expand access in this case?
What official and unofficial sources of power exert discursive authority?

These questions interrogate the ways in which a particular medium is regulated and how it, in turn, exerts discursive authority to regulate particular cultural dynamics. This of course includes legal strictures, international agreements, and other forms of official policy and regulation. However, the site of regulation may also be understood to include informal, private, and community-based forms of regulation. These could include professional norms, internal corporate standards, or grassroots activism. In the case of digital media accessibility, multiple sources of authority develop different notions of accessibility, reflecting
different structures of power and experience. The history of web content accessibility demonstrates how legal and extralegal forms of authority constructed accessibility as a technical phenomenon aimed at aiding people with disabilities. Examples from industrial and grassroots contexts show how accessibility may be tied to other meanings. Industrially, it is both a source of risk to be minimized and a potential ethical good among web developers. For activists and people with disabilities, it is often figured not as a technological or legal phenomenon but as a question of fairness or citizenship. By and large, regulatory forces have defined accessibility as a technological phenomenon that “fixes” individual deficits. Even as industry personnel and people with disabilities attempt to redefine access in relation to more progressive politics of disability as variation, or social construction, they lack the authority to fully transform dominant meanings.

Use

“Use” unites the questions posed in chapter 2, in which the ideal uses and users of technology are analyzed in respect to the non-normative and creative uses and user positions developed by people with disabilities. The interrogation of use proceeds through three central questions:

What is a given medium “for”? How is it meant to be accessed and used, and by whom?
What are the assumptions or defaults of the user position in this case, in terms of bodies, cultures, and technologies?
What alternate uses and user positions are there, and how are they found, negotiated, or discouraged?

Popular media, user-generated online media, and first-person accounts of user experiences provide the majority of sources in chapter 2, as I explore how popular discourses aid media technologies in establishing what I refer to as preferred uses and user positions; systems are set up for particular audiences and tasks, often in such a way as to privilege normative articulations of bodies, technologies, and culture. Such positions, however, like a preferred reading position, are not determinate; there are possibilities for negotiation and oppositional uses and user positions.
Introduction

Form

Chapters 3 and 4 work in concert to both utilize and problematize the separation of “form” and “content.” The ability to separate form and content is central to the kinds of variation and recombination that many theorists of new media celebrate, and it is foundational to the very possibilities of digital media accessibility. However, posing questions about these elements reveals the difficulty—and necessity—of distinguishing them from one another.

Interrogating “form” begins with the material dimensions of media technology, the structures of code, and the presentation of the interface. It is based on the following questions:

- By what means does one access a medium in this case?
- What material, technological, cultural, or social structures shape this medium’s material, technological, or designed components?
- How do these means of access, or structures, interact (or interface) with the bodies of those who use them?

Chapter 3 asks how material and encoded structures restrict access for people with disabilities and how they might be constructed differently. Brief cases are used to illustrate various understandings of form and access. First, the graphical user interface (GUI) is studied in reference to the assistive computing technologies of the late 1980s and early 1990s; here, the design of a formal structure made it unusable by visually impaired users, requiring extensive work to retrofit the software. Second, I turn to the ways in which HTML and Flash were understood oppositionally in early web accessibility work, drawing attention to the site of form as both a question of function and a question of style. Third, I look to mobile media, an area of innovation that drew explicitly upon accessible web technologies and has resulted in increased convergence between people with disabilities and mainstream audiences in their use of technology. Finally, I describe some current accessibility initiatives that are explicitly aimed at promoting the convergence of digital media forms and the integration of disability with a range of common concerns, including personalization, privacy, and cloud computing.
Content

The site of “content” is the focus of chapter 4. Digital media accessibility and accessibility initiatives in other media have often stressed that they do not intend to change the content, or cultural meanings, of media. Rather, they intend to change its presentation into a mutable form that allows for access by diverse populations. Questions regarding content are:

What is the information, meaning, or experience being pursued and why?
What are the cultural values surrounding that content?
How does this content, as a set of motivations and meanings, relate to the form in which it is delivered or received?

In answering, however, I am forced to ask in what ways form must change content and whether it is possible to consider variations of content as essentially equivalent. Issues of copyright, freedom of speech, and hierarchies of taste cultures intervene in the accessibility of content. Additionally, in studying the site of content I begin to consider the wide range of material that people with disabilities may want to access; how are these cultural motivations accounted for (or discounted) by larger technological and cultural institutions? Closed captioning of online material and the accessibility of video games are the dominant case studies throughout this chapter. Ultimately, I argue that content is a crucial motivator in demands for access, and that access to mutable content offers valuable, but not necessarily identical, experiences.

Experience

“Experience,” a deliberately amorphous term, is the focus of chapter 5. The site of “experience” is intended to incorporate phenomenological and identity-based elements of people’s encounters with media. It seeks the differences in experience, the unexpected outcomes, and the collaborative potential in media access. Theoretically, this chapter relies upon feminist theories of intersectionality as they have been adopted within critical disability studies. The questions guiding interrogation of experience are:
How is a medium experienced and defined by various groups or individuals, in relation to particular embodied identities, material forms, or social contexts?

What are (some of) the variations in access—to content, via technological form, in regulatory definition, or in terms of use—revealed by experience? By what processes, and in what contexts, can access be taken advantage of or extended?

This chapter begins with investigation of the access strategies deployed by people with disabilities. Then, I discuss the notion of “cultural accessibility.” This and similar phrases were used by many bloggers with disabilities to describe their own definitions of digital media accessibility. Though these incorporated technical elements—as did activist forms of regulation, in chapter 1—they were equally attuned to the emotional, cultural, and political dimensions of access to digital media. Extending “cultural accessibility” would require that accessibility initiatives attempt to integrate into their structure elements of participatory culture, a range of identity positions, and a range of technological expertise. I argue that identity and access are closely related features of encounters with media. When one or both of these elements are taken for granted, it is too easy to generalize about the nature of media and its users or audiences.

**Collaborative Futures**

The Conclusion will return to three central themes of this work: Access is a variable and relational phenomenon that structures media experiences; most media are designed, regulated, and discursively constructed around a normative user position that marginalizes communities such as people with disabilities; and intersectional study and attention to variability are crucial to realizing the progressive potential of media participation, as they prevent the easy assimilation of diverse experiences into a single privileged “user.” Building upon “cultural accessibility,” I analyze three contemporary initiatives that facilitate collaborative forms of accessibility and thus enable coalitional politics based on shared interests and needs. Coalitional modes of being and participating are particularly necessary counterweights to the neoliberal modes of individualism and division that characterize much of contemporary culture.
In concluding this Introduction, which has established the kit that will guide the book, I cannot resist a note on the oddly persistent phrase “kit and caboodle.” Though one would be hard-pressed to find any other uses of the word *caboodle*, or to define it outside of this phrase, it offers a pleasant finishing touch to the construction of this “access kit.” The (whole) kit and caboodle is understood most simply as referring to “everything,” or “all of the things.” Historically, however, *caboodle* referred most often to a group of *people*. Used with *kit*, it suggests a coming together of things and individuals into a collectivity for a given purpose or activity. Thus, I bring it up in this context because a kit comprising ideas ought always to be accompanied by the caboodle of individuals, identities, and attendant forms of agency that are implied by those ideas. Considering this connection encourages the grounding of cultural research in the material and embodied and connects my “access kit” to the lived experiences of the diverse individuals who participated in my ethnographic and interview research, populated the texts I studied, wrote or enforced or benefited from legal structures, and developed or used digital media technologies, as well as those who stand to benefit from a deeper understanding of the variable intersections of bodies, media technologies, and culture.

One member of this caboodle, of course, is the researcher, who makes decisions regarding the means of study, sources of information, and ultimate arguments drawn from this analysis. A degree of self-awareness is particularly important in the study of access, which depends upon one’s own embodied relations with media and technology and which may be influenced by these factors. I come to this project with a professional background in web development and an academic grounding in cultural studies. I write from within academia, with access to copious resources and reference materials, and with the advantages that such a position may confer on others’ willingness to participate in this project. Furthermore, my “relationship to disability” is as a scholar and ally; my minor physical ailments are not disabling conditions in my life. A similar phenomenon is discussed in race and disability scholar Sami Schalk’s work on “identifying with” disability studies as a nondisabled scholar, which she uses “to mean having acknowledged and prioritized political and personal connections to a group with which one does not identify as a member.” As, coincidentally, I wrote much of this book.
while increasingly pregnant and later with an infant at my side, I also experienced an increasing identification with disability. Experiences such as the stare, the medicalization of bodily functions, the embodied physical discomfort, and the experience of the body as social property became far more relevant to me as I begin to experience them from outside of a normate subject position. Pregnancy, like fatness, can be connected to disability on the basis of medicalization, social and moral condemnation, and political claims of identity. As feminist scholar April Herndon explains, “[M]any women have times in their lives when they gain weight and/or become disabled.” She argues that such possibilities force consideration of how bodies exist in flux, destabilizing our lives and identities. Pregnancy offered a window into both fatness and disability, increasing my ability to “identify with” the political project of disability studies and culture not only as a scholar but also as an embodied woman experiencing a shifting social location. This is not to say that those without such a window, who may not (yet) identify with disability, cannot enter into this text; my aim is to produce an intersectional analysis in which individuals may locate their own positions and draw from my research in ways that are meaningful to those contexts.

In bringing together the questions and forms of research joined in this text, I argue that disability—as identity, embodiment, and legal structure—forces consideration of both the flexibility of digital media and its normalization. It demonstrates both the limits and the potentials of participatory cultures and the technological frameworks upon which they rely. The study of digital media accessibility is important in its own right, as absent or flawed accessibility features work against the inclusion of bodily variation in new media spaces. After all, as seen in the “CAPTION FAIL” videos, mangled content and inappropriate media forms do no favors to anyone. Interpreting “A 100% organic free range black bean vegan burrito” as “Oracle organic free range but being in retail” is at best confusing and at worst a stymied lunch order. Digital media accessibility is thus both an example and a teacher, enabling the development of a framework for the study of other moments of media access and thus enabling greater accessibility technologically, academically, and politically. From the study of digital media accessibility, we may come to learn nuance, value variation, and apply these lessons to discussion of access in all of its critical contexts.