Toward a Queer Digital Humanities

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here is the queerness in the digital humanities? In one sense, queer studies and the digital humanities (DH) share a common ethos: a commitment to exploring new ways of thinking and to challenging accepted paradigms of meaning-making. At the same time, as scholars like J. S. Bianco have argued, many of the data-driven initiatives that have earned DH its most visible accolades eschew rather than engage topics of difference and identity.1 Though a number of queer studies and digital humanities scholars have already begun bringing queer perspectives to DH, much of this work remains marginal within the larger DH field. Yet the intersection of queer thinking and the digital humanities, like the intersection of feminism or critical race theory and DH, is a site of rich potential. Digital tools have the unique capacity to make visible the histories of queer representation and issues affecting queer communities. Simultaneously, queer studies brings to the digital humanities a set of intersectional, conceptual frameworks that challenge DH scholars to reflect on the politics of their research as well as the implications of their methodologies. Locating the queerness in the digital humanities is a crucial piece of a larger call for an increased critical engagement with culture in DH. This work foregrounds social justice and looks to queer subjecthood, queer desire, and queer world-building as guideposts in the movement toward a digital humanities that values social critique as much as computation and people as much as data.

"Queer" is a word with a long history and a complexity of meaning. From its origins as a pejorative, it has been reclaimed in recent decades by academic and popular communities alike. At its most basic, "queer" operates as an umbrella term: a marker of identity differentiated from "gay" or "LGBT" in that it encompasses all non-normative expressions of sexuality or gender (Grace, Hill, Johnson, and Lewis). Not every person whose identities fall within this category identifies as queer, however, and "queer" itself is a contested term. Within the context of queer studies, the concept of queerness has been interpreted and reinterpreted in manifold ways. From across the work of generations of queer theorists, queerness has emerged as a way of

being that is complex and contradictory: at once joyful and destructive, hopeful and fierce. Queerness resists the logics of heteronormative hegemony. "Queer" can also act as a verb: to queer is to destabilize, to subvert, or to unearth queer desire beneath the surface. Amplifying a long-standing thread within queer theory of attending to the interplays between queerness and race, contemporary queer studies scholars are increasingly considering queerness within an intersectional context, addressing how queer issues are interwoven with questions of race and ethnicity, class, socioeconomics, and disability (Chen; McRuer; Muñoz). In a fundamental sense, however, what unifies uses of "queer" is that the word still contains at its heart a basic desire to live life, and to understand life, "otherwise" (Halberstam, "Queer Art," 2). At the same time, queerness is not an abstract concept. Even when it is applied conceptually, queerness is still rooted in the embodied realities of queer subjects.

This essay offers our vision for a "queer digital humanities," that is, a digital humanities that is invested in queer issues and has queer thinking at its core. Our goal is not to dictate what forms this queer digital humanities must take. Rather, starting from a survey of existing queer DH scholarship, our goal is to suggest ways forward, to open up queerness in the digital humanities as a space of possibility. We are far from alone in calling for an increased investment in social criticism in DH (e.g., Bailey; Crompton, Siemens, Arbuckle, and INKE; Koh; Liu), and others before us, such as Kara Keeling in her writing on a "Queer OS," have explored ways in which queerness might reimagine the cultural narratives that surround computational technologies. Our intervention is to build from this work in order to argue for positioning queerness as a central element of DH methodologies. When we ask, "Where is the queerness in the digital humanities?" we are also asking, "What might it mean to do the work of the digital humanities queerly?" The authors of this article approach this question from a variety of research backgrounds. In addition to being digital humanists, together we represent perspectives from game studies, queer studies, literary studies, digital librarianship, and critical making. We believe that queerness can function as a force to destabilize and restructure the way that DH scholarship is done across these fields. The vision of a queer digital humanities that we propose is at once conceptual and pragmatic. For us, moving toward a queer digital humanities means valuing queer lives and embracing a queer ethos but also addressing actionable, concrete ways that queerness can shift how the work of DH is done.

The stakes of arguing for the place of queerness in the digital humanities are palpable and present. At a time when harassment in digital spaces has been elevated to new peaks of vitriol, those who speak out for the importance of thinking about gender, sexuality, and structures of oppression in relation to the digital humanities have found themselves the targets of reactionary backlash. As are discussions of data and computation more broadly, DH tools are commonly imagined to be apolitical. Archives, visualizations, and other interfaces created by digital humanists often understand themselves as direct windows onto knowledge, offering democratizing

access to objective truths. Data, so the saying goes, don't lie. As feminist scholars of digital cultures know well, however, computational tools have profound political implications. Interfaces structure meaning; visualizations craft interpretation. Any discussions of technology must account for problems of access, both to devices and to education. We believe that this is a crucial time for bringing queer perspectives to the digital humanities, specifically because this is a moment of change. The reach of DH extends farther than ever before. This is therefore a time in which DH methodologies and technologies are both proliferating and codifying, making this an important moment of intervention. At the same time, pushing DH to engage more deeply with queerness has a wider relevance in contemporary conversations about difference, which are proliferating both in today's popular discourse and within our own academic disciplines. Far more than a niche issue within the digital humanities, queerness can serve as a beacon guiding us toward change and a new way forward within DH more broadly.

Queer Subject Matter in the Digital Humanities

We begin by addressing this question: where is the queerness in the digital humanities? Or, rather, where *could* it be? The most immediately apparent way in which the digital humanities can engage with queerness is by directly addressing issues relating to LGBTQ subjects. Indeed, a handful of initiatives of this sort have been undertaken in recent years—but such projects, while illuminating, remain limited in number. Nonetheless, it is important that we account for this research within our framework for a queer digital humanities precisely because it grounds the types of conceptual thinking we expand on below in the lived experiences of LGBTQ communities, histories, and struggles.

Of the existing digital humanities projects that directly address queer issues, some use established DH practices, such as archiving and generating visualizations, to make information regarding queer artistic and political lineages more widely available. The Lesbian and Gay Liberation in Canada project, for example, presents users with an interactive online map that highlights key events and locations in Canadian lesbian and gay rights activism between 1964 and 1981 (lglc.ca). Through this map, the project brings queer history to life, reanimating it via dynamic digital interfaces. Other archival projects have used DH tools to invite users to explore LGBTQ counterhistories. The Centre for Digital Humanities at Ryerson University's Texting Wilde initiative aims to create a web-based archive of texts that document the pre-1945 biographical discourse surrounding Oscar Wilde. Rather than collecting Wilde's writings themselves, *Texting Wilde* enumerates the debates that shaped this early period of Wilde scholarship. In this way, the archive allows visitors to understand the constructed and shifting nature of the narratives that have long positioned Wilde's same-sex desire as a defining element of his work. A project like Texting Wilde uses digital humanities methodologies to increase engagement with the queer literary canon, but it also queers the notion of biography itself. It lays bare the process by which meaning has been made from Wilde's life and restores multiplicity to the complexity of lived experience. In this way, such a project gestures toward the queer potential of archiving itself as a practice that challenges concise, monolithic, and often hegemonic interpretations of knowledge.

Other digital humanities projects that speak directly to LGBTQ issues include those that address queer subjects through their exploration of social discourse, their interest in pedagogy, or their creative engagement with the cultural implications of technology. Berkeley's #Identity project, for instance, explores the meanings and effects of common Twitter hashtags that relate to issues of diversity, including the commonly used homophobic hashtag #nohomo (De Kosnik and Feldman). Edmond Chang has written about queer digital pedagogy, which he describes as "finding, creating, and playing with multimodal and polyamorous questions, algorithms, archives, and artifacts, analog and digital, flesh-to-flesh and virtual" and which "asks teachers and students, readers and writers, makers and players to be perverse, to be critical and reparative, to invest in these queer sites and moments with 'fascination and love'" (Chang). Meanwhile, artist Zach Blas addressed queerness directly through critical making with his Queer Technologies project (2007-2012), on which he later collaborated with micha cárdenas. As explained by Blas and cárdenas, Queer Technologies is "an organization that produces a product line for queer technology agency, intervention, and social intervention" (Blas and cárdenas, 3). The project is constituted of a series of installations, art objects, and a "queer programming anti-language": a suite of creations that explore the relationship between queerness and technology. We will discuss Queer Technologies at greater length below. Here, we point to these examples of digital humanities work that directly engages with LGBTQ issues in order to demonstrate some of the varied modes of understanding that DH has already brought to the field of queer studies.

As we review this selection of existing work at the intersection of DH and queer studies, we also look for scholarly models that might inspire future digital humanities research focused on LGBTQ subject matter. Two related, emerging areas of research constitute productive areas for further exploration: feminist digital humanities and queer video games. Feminist DH work, and especially the efforts of the Fembot and FemTechNet collectives, has demonstrated how the digital humanities can speak directly to intersectional concerns of social justice. Such work both uses DH tools to address cultural questions of gender and turns a critical eye to the relationship between gender and privilege in the digital humanities itself (see Wernimont). Thus, feminist DH scholarship functions as an argument that technology, while imbued with problems of discrimination and difference, can nonetheless become a powerful platform for critiquing dominant norms—an application that must also be central to a queer digital humanities.

Though it has largely been articulated outside of the discourse of DH, the burgeoning field of queer game studies also shares much with the queer DH we are

imagining. Queer game studies has emerged from collaborations between queer theorists, game studies scholars, and queer game designers. While scholars and cultural commentators have published work on gender and sexuality in video games since the 1990s, queer game studies has come together as a research paradigm more recently, energized by the annual Queerness and Games Conference and a concurrent, ongoing wave of independent, personal games made by queer designers like Anna Anthropy, merritt kopas, and Mattie Brice (Ruberg and Shaw). One of the things that makes queer games studies and what might loosely be called the queer games "movement" particularly notable is it foregrounds building dialogues across disciplines and modes of critique (Ruberg). At events like GaymerX, the LGBTQ fan convention, game studies scholars present to nonacademic crowds; simultaneously, game designers perform incisive deconstructions of heteronormative culture through their use of ludic systems. Games culture has long been a hostile space for those perceived as "different," and contemporary online harassment campaigns have made that hostility all the more palpable. Work in the area of queer games brings with it a vibrancy and an immediacy that demonstrate how technological tools can foreground social justice in discussions of queer issues. As the work of these related fields demonstrates, the combination of digital media and queer perspectives demonstrably has the capacity to enliven, enrich, and challenge dominant thinking around both technology and queerness itself.

It perhaps goes without saying that, moving forward, we hope to see more digital humanities projects that engage explicitly with LGBTQ issues. Following from the initiatives discussed here, such projects could document LGBTQ histories, augment the study of LGBTQ lives, offer insight into social phenomena of relevance to LGBTQ communities, prompt instructors to bring the study of LGBTQ issues to life through digital humanities platforms, or explore the place of LGBTQ perspectives in technology through creative making practices. Inspired by the work of feminist DH, such work could also turn a critical eye on the place of LGBTQ subjects within the field of the digital humanities and the institutions through which DH functions. Additionally, in the vein of queer game studies, work in this area could expand through collaboration between scholars and media makers. Before we move into our discussion of queerness in relation to DH methodologies, we linger here for a moment to underscore the importance of representing LGBTQ subjects in the digital humanities. Queerness offers invaluable conceptual frameworks, but a queer digital humanities represents far more than a set of concepts. DH can and must do more to directly address issues faced by those who are marginalized—not despite the fact that, but precisely because, digital fields have long been problematic spaces for those who live life otherwise. For much of their history, these fields (such as computer science, video games, and humanities computing) have been implicitly structured as white, male, heteronormative spaces. As Whitney Phillips has shown in her study of online trolling, This Is Why We Can't Have Nice Things, abuse performed through online communication platforms is not a social aberration, but

in fact reflects dominant cultural values. In the wake of #GamerGate, a number of essays in the *State of Play* collection (Goldberg and Larsson) examined the hostility against females, persons of color, and queer gamers that continues to pervade games culture. Antifeminist hostility even finds a voice in scholarly forums like the Humanities, Arts, Science, and Technology Alliance and Collaboratory (HASTAC) comment threads, as shown by the heated response to Arielle Schlesinger's blog post about feminist programming languages, discussed more below. Given this backdrop, it is important for us to remember that even as we call for DH scholars to increase their engagement with queerness, queer subjects working in the digital humanities face real risks in pushing the field in more inclusive directions.

Queer DH Methodologies: Inspiration from Existing Work

While queer studies can usefully employ DH tools and practices to produce scholarship focused on queer subjects, it is also important to examine how queer theory can inform current and future digital humanities methodologies. One of the key areas of debate in DH is the role that computing plays in differentiating DH from other modes of humanities scholarship. Some have argued that the digital humanities' narrow focus on computation has led the field to imagine itself, supposedly like computation itself, as free from concerns of economics, race, gender, and sexuality. As Alan Liu observes, "While digital humanists develop tools, data, and metadata critically . . . rarely do they extend their critique to the full register of society, economics, politics, or culture. How the digital humanities advances, channels, or resists today's great postindustrial, neoliberal, corporate, and global flows of information-cum-capital is thus a question rarely heard in the digital humanities" (Liu, web).

Liu goes on to argue that DH must develop a "methodological infrastructure" that unites computational and cultural criticism. Similarly, Roopika Risam, in her essay on intersectionality in DH, suggests four areas in which the digital humanities need to develop in order to create a more inclusive and socially engaged standard of practice: "cultivating a diverse community," "acknowledging inclusions and exclusions in data," applying "theoretical models that position intersectionality as an already existing but oft-overlooked part of computation," and developing systems "for understanding the ways difference [or lack thereof] shapes digital practices" (Risam). Liu's and Risam's critiques make it clear that currently dominant DH methodologies are not sufficient for the development of a queerly inflected digital humanities. The last two areas of development mentioned by Risam (theoretical models in which to identify existing intersectionalities and systems for understanding how difference shapes computation) are of particular interest to the present project. They suggest a queer DH praxis that is distinguished from mainstream DH through its conceptual models—models that can usefully be informed by queer theory. To draw from key questions that queer theory has asked in literary and historical studies, how can we discover, uncover, and recover the queerness (in its various intersectional manifestations) in computation, as well the effects that queerness has had on computing and the potential effects it could have in the future? To date, this praxis has taken the form of speculating on the interconnected histories of queerness and computing, imagining the queering of the fundamental structures of computing technologies, conceptualizing queerness itself as a technology, exploring the queerness of code, and utilizing concepts of "speculative computing" to enact queer work.

A number of these existing works can help us think about queer methodologies for DH. A generative starting point is Kara Keeling's "Queer OS," which outlines the properties of an imagined queer operating system that itself offers new frameworks for making sense of society and identity. In Keeling's formulation, inspired by Tara McPherson, Queer OS is "a project at the interfaces of queer theory, new media studies, and technology studies" that structures itself around the logics of queerness (153). Keeling's Queer OS, should it exist, would understand cultural phenomena like "race, gender, class, citizenship, and ability . . . to be mutually constitutive with sexuality and with media and information technologies." Keeling continues: "Queer OS names a way of thinking and acting with, about, through, among, and at times even in spite of new media technologies and other phenomena of mediation. It insists upon forging and facilitating uncommon, irrational, imaginative, and/or unpredictable relationships" between human subjects and digital media (154). As a launching point for imagining queer DH methodologies, Keeling's Queer OS can be read as an imperative for queer DH scholars to embrace the complex and often contradictory tangle of intersectional investigation. It also directs DH researchers more generally to understand computing not as outside of social issues but rather as shaping and indeed being shaped by cultural determinants.

In addition to informing our vision of a queer digital humanities, Keeling's essay has inspired others to interrogate the intersection of queerness and DH. In their 2016 piece, "Queer OS: A User's Manual," Barnett and colleagues take up Keeling's call to conceptualize a Queer OS, which, the authors point out, "remains a largely speculative project" (50). However, as the authors themselves point out, the speculative operations of the queer system shouldn't necessarily conform to conventional notions of functionality. To the contrary, they state,

[Our goal] is to engage with the challenge of understanding queerness today as operating on and through digital media and the digital humanities. Our intervention therefore seeks to address what we perceive as a lack of queer, trans, and racial analysis in the digital humanities, as well as the challenges of imbricating queer/trans/racialized lives and building digital/technical architectures that do not replicate existing systems of oppression. As such this is a speculative proposition for a technical project that does not yet exist and may never come to exist, a project that does not yet function and may never function. (51)

The "user's manual" the essay provides is a provocative queer reimagining of what form and role various key components in digital computing (such as interfaces, applications, and memory) might take, with "each component given a poetical and theoretical description of its features and limitations" (50). While these descriptions inspire the reader to imagine a potential future in which computing is more in line with the ethos of queerness, some readers may ask where, in the present, we might identify the beginning points that might lead us toward a concrete instantiation of a Queer OS and, along with it, a queer DH. DH practitioners who are themselves queer and therefore potentially marginalized subjects working within the reward and accreditation structures of contemporary academia may feel that they need to produce work of a more tangible sort than "theoretical vapourware, speculative potentialware, ephemeral praxis" (51). These individuals may wish to (or feel the need to) develop computing technology that shares meaningful connections with this theoretical work but that does not itself embody "an unreliable system full of precarity" with an "inherent instability," given the already precarious position of many queer subjects within the digital humanities (54).

In order to further explore the trajectories along which queer DH might unfold, we turn next to three of the scholarly works from which Keeling draws. The first is Jacob Gaboury's series of articles titled "A Queer History of Computing." One question that vexes the development of a queer DH is how to theorize the relationship between queerness and the ways in which computing itself can enact queer erasure. In his piece, Gaboury addresses this tension through a discussion of Alan Turing and other figures from the history of computing whom Turing influenced. Though Turing is considered to be a central figure in the development of modern computing, rarely have conceptualizations of his work overlapped with discussions of his queerness or the injustices he suffered at the hands of the British government. Gaboury recognizes that any claims about a direct correlation between Turing's sexuality and his theories of computation would be problematic. To posit that the former "inspired" the latter would be simplistic, says Gaboury, yet to conclude that no relationship exists between the two "parses what is technologically significant in such a way so as to exclude the personal, the emotional, and the sexual" (Gaboury). Faced with the problem of articulating how the sexual signifies within the technological, Gaboury traces historical connections between a community of queer figures who played key roles in the early history of computing. Though it remains unclear what direct effects sexuality may have had on their work, Gaboury finds value in refiguring their production through a "speculative history" that foregrounds the oft-elided place of queerness. This type of fabrication (i.e., speculation) resonates in unexpected ways with the digital humanities practices of critical making. Gaboury's history of computing both extends and problematizes DH methodologies by recasting making as "making up." Additionally, Gaboury's focus on historical absence—the suppressed, missing, unrecorded, and always partial nature

of queerness in the history of computing—points toward the restorative work that could be done by a queer digital humanities.

Turing's place within the history of artificial intelligence connects Gaboury's work to Jack Halberstam's earlier essay "Automating Gender: Postmodern Feminism in the Age of the Intelligent Machine." Halberstam's essay too provides useful models for conceptualizing a queer digital humanities. "Automating Gender" offers, among other things, a critique of feminist theories that rely on reductive ideas of phallotechnocracy and essentialist conceptions of gender. Like Gaboury, Halberstam looks to Turing to counter these narratives. What is now commonly referred to as the "Turing Test," Halberstam points out, began as a "sexual guessing game" in which an interrogator attempted to determine the genders of players as they answer questions via technological mediation. "Turing does not stress the obvious connection between gender and computer intelligence," writes Halberstam. However, "both are in fact imitative systems, and the boundaries between female and male . . . are as unclear and as unstable as the boundary between human and machine intelligence. . . . Gender, like intelligence, has a technology" (443). ² To illuminate this unstable binary between the human and the machine, Halberstam takes up Donna Haraway's delineation of the female cyborg as a representation of technology's ability to transcend binary structures. Given that queerness, unlike essentialized gender or sexuality, has been closely aligned with artificiality, unnaturalness, imitation, and the subversion of binaries, one might describe Haraway's cyborg as queer—and, by extension, Halberstam's vision of cyborg technology as queer technology. In addition to envisioning technology as queer, Halberstam implicitly posits queerness itself as a technology. Such a formulation suggests a symbiotic, dialectic relationship between technology and queerness. It also suggests that the interface between human and computing technology might be understood as a space of queer intimacy and relation. Placed within our discussion of digital humanities methodologies, "Automating Gender" challenges us to account for the ways in which gender and sexuality are in fact inextricable from computational systems.

Another valuable touchstone for interrogating the relationship between queerness and the digital is Blas's *Queer Technologies* project, mentioned above, which similarly turns to Turing in theorizing the relationship between queerness and computation. "For us," write Blas with his collaborator cárdenas in an article outlining the work of *Queer Technologies*, "Turing is a crucial historical figure for thinking the politics of digital technologies from queer and feminist perspectives" (2). Yet, perhaps more than a historical figure, Turing appears here as a founder of queer computational thinking. Did Turing's homosexuality affect his research? Blas and cárdenas answer this question with a resounding yes. "The drives and assumptions of a heterosexual sexuality produce certain ways of producing and knowing that can be embodied in objects created by heterosexual scientists," they assert. "Similarly, homosexual desires can inform and help to materially construct the technicity of objects." That is, for Blas and cárdenas, the very logics around which contemporary

computation has been founded are shaped by Turing's queerness. Fittingly, it seems that the impulse behind the many artistic works that make up the *Queer Technologies* project is to reimbue or perhaps rediscover the queerness in computational technology. Of these works, the one of most interest here is Blas's *transCoder*, which Blas describes as "a queer programming anti-language." Works written using *transCoder* are not executable. Instead, *transCoder* functions primarily as a critical tool—in Mark C. Marino's words, "a theoretical software development kit, made not of functional functions but of encoded plays on the methods and discourse of critical theory" ("Of Sex," 187). As an unexecutable coding language, *transCoder* suggests a suite of approaches to queer digital humanities methodologies that play with failure and loss. We will return to reflect on the critical concerns that surround failure below. Still, our vision of a queer DH must account for an investigation of the times when technologies, like heteronormative modes of meaning, break down.

Queer Technologies models how practice-based work might speak to potential queer DH methodologies. It also directs us to consider the queer potential of other forms of digital praxis. transCoder can be seen as a queer application of what has been called codework. Codework subverts the tenets of "well-written" code: simplicity, functionality, transparency, and legibility. Examples of codework range from the nonexecutable net.art creations of "Mez" (Mary-Ann Breeze), written in a hybrid language called "m[ez]ang.elle," to obfuscated code and esoteric programming languages ("esolangs"). In "Interferences: [Net.Writing] and the Practice of Codework," Rita Raley notes that codework allows programming languages to break the surface, rather than simply leveraging them to perform the invisible labors of technology. This refiguration of code—as elusive, hidden, and ultimately uncontrollable—resonates with queer theory's notion of queer meaning as similarly submerged and anxiogenic. Referring to Jessica Loseby's net.art work Code Scares Me, Raley notes how it thematizes "anxieties about [the] intrusion, contamination, and uncontrollability" of code (Raley). Like queerness as interpreted by many queer literary scholars, code in Raley's formulation becomes monstrous, invisible, unknowable, and alien: "It lurks beneath the surface of the text. . . . The fear, further, is that code is autopoietic and capable of eluding . . . attempts to domesticate it and bring it into order." Practitioners of codework, Raley observes, see their production as expressly political; it resists assumptions about the neutrality of programming, reclaims code from corporate functionalism, and repurposes the pragmatic as the aesthetic. Such sentiments stand in contrast to the seemingly apolitical sensibilities of programmer communities dedicated to composing obfuscated code and esolangs. These practices tend to fall into the domain of professional programmers for whom testing the boundaries of coding represents an opportunity to demonstrate mastery. Yet obfuscated code and esolangs too represent potentially generative modes of queer DH methodologies. They refuse established expectations for readability and intentionally walk an anxious line between the domestication of code and code's refusal to "be brought into order."3

This discussion of esolangs brings us to the last work from which we draw inspiration for our vision of queer DH methodologies. This is what Johanna Drucker has termed "speculative computing." As Drucker recounts in her book SpecLab, speculative computing emerges from a "productive tension" within the digital humanities. Specifically, speculative computing aims to invert DH's focus on the use of digital tools in humanities scholarship by focusing instead on the development of "humanities tools in digital environments" (Drucker, xi). Extending the conceptual stakes of speculative computing, Drucker advances a theory called "aesthesis," which foregrounds "partial, situated, and subjective knowledge" and proposes imaginative play with digital objects as an antidote to the totalizing authority of meaning. "Aesthesis," writes Drucker, "allows us to insist on the value of subjectivity that is central to aesthetic artifacts . . . and to place that subjectivity at the core of knowledge production" (Drucker, xiii). In Drucker's characterization, speculative computing takes seriously the destabilization of categories, including taxonomies of entity, identity, object, subject, interactivity, process, and instrument. In short, speculative computing rejects mechanistic and instrumental approaches, replacing them with indeterminacy and potentiality, intersubjectivity, and deformance. Speculative computing operates as a critique of the computational logics that structure much digital humanities scholarship. While Drucker does not mention queerness in *SpecLab*, her work gives voice to an ethos that could serve as a powerful directive for the queer digital humanities. A queer DH would extend the "otherness" that speculative computing enacts by focusing deliberately on issues concerning gender and sexuality in computing. Like queerness itself, the methodologies of a queer digital humanities must not be monolithic. Indeed, with its resistance to totalizing knowledge, speculative computing demonstrates the importance of methodological diversity.

Accordingly, we believe that modes of queer DH scholarship must themselves be multivalent, multiplicative, and self-critical: a set of practices in flux. Taken together, the works considered in this section challenge us to think about queerness in digital humanities methodologies as a matter of fundamental computational structures, as well as (if not more than) a matter of content. These works also encourage us to reflect on the foundational role that intersectional issues related to gender and sexuality play in the formation of new media and digital tools. They insist upon the importance of queer thinking within the history of computation; they delineate the queerness of technology as well as the technology of queerness. Some of the research we have discussed employs traditional scholarly methods. Equally compelling, other works make their arguments through fabrication and artistic interpretation. In our vision, a queer digital humanities too stands poised at the intersection of critique and creation. Drawing from these conceptual frameworks, queer DH itself emerges cyborg-like: a playful methodological hybrid of perspectives, tools, and meaning.

New Visions for Queer DH Methodologies

In the beginning of this essay, we asked, "Where is the queerness in the digital humanities?" Here we transition to consider the question, "Where *could* queerness be in the digital humanities?" In this section, we seek to extend our vision for a queer digital humanities beyond the methodologies suggested by existing work. Or, more precisely, having drawn inspiration from these works, we push ahead to imagine not just a speculative past, as Gaboury does for the history of computation, but a speculative future.

Many of the elements of dominant digital humanities methodologies that we would like to see queered are precisely those that appear, at first glance, least explicitly tied to the politics of DH. Such elements are commonly imagined as functional, mechanical, and therefore objective while, in fact, they too have the capacity to profoundly shape the political implications of DH on an otherwise invisible, structural level. A prime example of this type of functional methodology is object description. A sizable amount of digital humanities scholarship involves describing objects (as in a database). A DH scholar may write an object description for many reasons, but first and foremost that description functions as a marker so that the object may be retrieved later. Whether they are encoding a line of text using the Text Encoding Initiative's markup specification to identify the speech of a character for programmatic manipulation or creating searchable metadata tags for a digital library, a researcher must make choices about how to describe an object within the taxonomical affordances of the available toolset. Such choices, however, are far from obvious or mechanical, and they cannot go unexamined. Alex Gil reflects that he "would make a poor excuse for a humanist if [he] just wrote new books that others would catalog 'mechanically,'" because "the humanist must tend to the production and re-production of sources, archives, narratives, and significance" (Gil). Far from objectively communicating meaning, object description positions the machine, broadly defined, as an intermediary that reflects and enacts the cultural context in which it was created. Thus, object description—not just the work of describing but also the implementation of description in searchable form—is shaped by the cultural assumptions systemized in technology. The limitations, structuring logics, and history of a digital tool determine the opportunities it affords for making meaning from the world.

To explore what it might mean to queer a structural element of digital humanities methodologies like object descriptions, we return to the meaning of "queer." "Queer" as a descriptor occupies an unstable position. It acts in opposition to "straight," but refuses to clarify exactly how; at the same time, it stands to be subsumed by more specific identities as the need arises. Since "queer" is a reclaimed term, it is not uncommon to meet someone who refutes queerness, who instead feels more comfortable with "gay" or "lesbian" as an identifier. This inherent instability "messes up" the labor of description. In their essay "Queer Practice as Research: A Fabulously

Messy Business," Alyson Campbell and Stephen Farrier identify the messiness of queerness as a methodology, one in which "messiness is imbricated with queerness and where cleanliness in knowledge production is associated with knowledge forms that have routinely occluded the queer and the non-normative in an effort to tidy up hypotheses and conform to hegemonic forms of 'rigour'" (Campbell and Farrier, 84). Queer knowledge, in short, is messy.

Given that indexical taxonomies are traditionally designed to "tidy up" knowledge, how might a descriptive vocabulary account for that queer messiness? The Library of Congress Subject Headings (LCSH), a standardized and widely adopted thesaurus of subject headings for use in bibliographical records, demonstrates the trouble that arises when systems of knowledge categorization do not account for the nuance and complexity of queer identities. Criticism of LCSH's treatment of marginalized groups goes back to at least the 1970s (Marshall; Berman). However, as Hope Olson notes, few of these early critics of LCSH "[seem] to have considered a change in structure—only in content." While the terminology used to describe queer subjects has been updated over time, the deployment of that terminology lacks standardization. In a series of recent blog posts, Netanel Ganin examines the continued problems that still surround the confusing application of queer-related terminology in LCSH, where "gay" is used as both an umbrella term for "gay men and lesbians" and shorthand for only "gay men." Perhaps most strikingly, as others have noted, the word "queer" itself remains largely absent from LCSH's vocabulary (Kotter; Roberto). Jenna Freedman observes in another blog post some of the descriptive confusion that arises from the absence of the word "queer" from LCSH when it comes to taxonomizing works by writers who deliberately describe their works as queer. In one sense, the push for bringing queerness to LCSH serves as a powerful metaphor for the pressing need to make queer subjects visible and speakable within the structures of the digital humanities: it parallels, in miniature, a larger fight for the right to signify. Far more than an abstract debate, though, the argument for increasing queer inclusion in LCSH speaks to the real lives and labors of scholars who are fighting uphill against established ways of knowing.

Building a taxonomy that adequately accounts for the complexities of queerness may well mean turning to models of self-description that emerge from within queer communities. In "Queer Methodologies," psychotherapist Peter Hegarty critiques the restrictive recommended descriptive practice of the *Publication Manual of the American Psychological Association*. By contrast, he calls attention to the wealth of nuance revealed in the responses to a 2004 gay men's sex study. This study brings to light the many and varied ways that respondents described their identities. In this sense, it speaks to the full complexity of any system that attempts to taxonomize identity and desire. Hegarty writes of the language that men in the study used to describe themselves: "When I read this list of terms some of them made me laugh because they seemed to subvert the question that the researchers asked. Others made me feel uncomfortable as they are terms I once used to describe myself but

have long since given up. Collectively, they made me wonder when and where sincerity, irony, cooperation, and dissent might be the intended effects of nominating the sexual self with a particular label" (132). As formulations of their own queerness that defy reduction, these men's responses to the survey echo the idea that "queer knowledge is a knowledge that refuses to be complete" (Grace and Hill, 302).

If queer knowledge always resists completion, it becomes clear that queering metadata means more than adding new vocabulary to existing taxonomical systems. Queerness also points toward a shift in the very methodologies of metadata collection. To queer metadata, queer thinking must be brought to bear on the conceptual models and tools of object description as well as its content. Indeed, the messiness of queerness provides a new vantage point from which to challenge the norms that dictate how meaning is derived from data. The very ways in which data are traditionally mapped rely on a model of the world that queerness refutes, namely, a oneto-one relationship between concepts. A queer digital humanities must therefore seek out systems of meaning-making that can account for nonbinary relationships. Some digital humanities initiatives have begun this work already. Efforts like RDF and linked data, for instance, model network relationships instead of hierarchies. Drawing from this work, Tara McPherson has aptly proposed that "gender, race, sexuality, class, and disability might then be understood not as things that can simply be added on to our analyses (or to our metadata), but instead as operating principles of a different order, always already coursing through discourse and matter" (McPherson, "Designing for Difference," 181). We have lingered over this extended discussion of object description and metadata because we find that it helpfully models the type of queer thinking that can be brought to bear on almost any element of digital humanities methodologies, even those that appear initially least politically or culturally inflected.

Another methodological mode that we believe has expansive potential for a queer digital humanities is play. McPherson remarks, "If a core activity of the digital humanities has been the building of tools, we should design our tools differently, in a mode that explicitly engages power and difference from the get-go, laying bare our theoretical allegiances and exploring the intra-actions of culture and matter" ("Designing for Difference," 182). Play fills this need to adjust, reconceptualize, and design differently. In a queer sense, play implies making a mess and exploring that mess in order to ask, "What if?" Looking forward, queer digital humanists might use playful practices and attitudes to challenge old organizational structures. The practice of writing "living code" offers another potential site of inspiration for a queer digital humanities. Instead of writing a script once and later executing it, the living coder intervenes in the process and makes changes as needed. Collins details the empowering aspect of live coding: "The human live coders who flirt within the algorithmic environments, teasing and tinkling the guts of the processes, are the most powerful agents around. Their presence continually reinforces the truism that software is written by people and makes live its construction and deconstruction" (210).

Live coding needn't even be digital. Bringing together concepts of play and living code, Collins mentions games like *Nomic* or *1000 Blank White Cards* and how rule changes can be made not just during gameplay but as part of gameplay, evolving to meet the desires of participants. Alternatively, instead of interrupting computational processes, we might code disorganization directly into our algorithms, as J. S. Bianco does in her digital essay "Man and His Tool, *Again*?," which deconstructs the traditional form of the essay through the caprices of algorithmic instruction.

Yet another potential queer DH methodology to explore is the glitch. Here the line between performance art and academic research begins to blur, opening space for a radically different imagining of technology born of queer methodology. Jenny Sundén asks us to reconsider the value of the glitch, "an ambiguous phenomenon . . . an unexpected break in the flow," where it is "an amplification of already existing flaws, defects, or errors. Instead of covering up the seams, it presents them proudly." In a keynote address at the 2015 Queerness and Games Conference, Sandy Stone propositioned remapping her clitoris to the palm of her hand and masturbating for the crowd, challenging ideas of appropriateness and pleasure and calling upon attendees to imagine the glitch as an embodied phenomenon: the body out of place and out of order, taking queer pleasure in an embrace of this "flaw." Campbell and Farrier describe the glitch as "practice-as-research," purposefully muddling what might otherwise be a clear delineation between research and researcher, "resist[ing] the normative impulse for cleanliness brought about by disciplining knowledge" (84).

Admittedly, there are potential problems with this call to play around, to mess up, to break down. We recognize that a tension exists in this this call to play, risk, and fail. These methodologies can come into conflict with other things we value in critical digital humanities practice. Practices like standardization of data or plugand-play code can enable participation in the digital humanities or lower the barrier to entry, especially for new practitioners and marginalized subjects. Accessibility and disability must be part of our discussions when we consider the queer potential of a "mess." How far can we play around before creating obstacles that discourage participation? Researchers are also subject to the need to produce: for the requirements of a grant, for tenure and promotion, as part of a funded project, to produce "metrics" for administrators and so on. We do not intend to dictate that DH scholars, faced with the choice to implement a normative or a queer methodology, must always make the queer choice. However, we do believe that queer digital methodologies have important new perspectives to offer scholars from all branches of DH, and that the rewards for taking the leap into new modes of structuring the world are of immense scholarly and social value.

Toward a Queer Digital Humanities

The goal of this essay has been to argue for an increased engagement with queerness in the digital humanities. By looking at DH work that directly addresses queer

subjects, we have attempted to demonstrate the value of bringing DH to queer studies—as well as indicating areas that are ripe for significant expansion. In turning to the methodologies of DH, we have been interested in seeing the other side of this equation: what queer thinking can bring to the digital humanities. We looked at existing work that theorizes the relationship between queerness and technology as a launching point for imagining queer DH methodologies. Building from this work, we mapped a selection of our own suggestions for queer DH methodologies, with object descriptions as our main illustrative case study. We close by emphasizing that we do not mean for the methodologies we have suggested to be comprehensive, but rather for them to demonstrate the richness, variety, and potential at the intersection of queerness and DH. It is our hope that they serve as inspiration for others to push further in this arena. This work, and future explorations into the relationship between queerness and DH, speaks to important and pressing concerns around social engagement in the field, underscoring the politics of computation and calling for a wider diversity of perspectives in both subject matter and method.

Like most calls for a critical digital humanities, we are here asking for reflection on methods of labor, creation, product, and practice, and how they embody, enact, restrict, or constrain modes of expression. Who or what benefits from "straight," "cis," or "clean" data, and what might "queer," "trans," "nonbinary," "messy," or "playful" data look like? What do we expose when we resist norms and binaries, or when we read queerly, build queerly, map queerly, and play queerly? Many queer-identified people recognize the tradeoffs of negotiating their identity. Context can make the transition smooth, risky, fraught, or celebrated. Practicing a queer digital humanities is much the same. Different stakeholders bring different needs and values to this work, and a queer digital humanities must make space for a wide continuum of approaches. Constructing systems (not just literally computing systems, but systems of thought, systems of expression) that support ambiguity, permit play, and engage difference can be a rewarding challenge but also a risk. Queerness too represents a risk, a place at the edge of unsafety; yet this same space is the space of possibility. We expect that a truly queer DH may still be a long time coming—or, perhaps, it will never come. This tension too lies at the heart of our queer digital humanities, and it is perhaps in tension that we might locate the most radical line of thinking that queerness brings to DH. At a time when the digital humanities promises to make sense of the world through supposedly objective computational tools, queerness refuses to allow us to stop reflecting, stop challenging, and stop questioning.

Notes

1. In "Room for Everyone at the DH Table?" Roopika Risam and Adeline Koh offer a structured synopsis of a 2013 open discussion thread on "The Digital Humanities as Historical 'Refuge' from Race/Class/Gender/Sexuality/Disability" that addresses this issue directly.

- 2. In her earlier *Technologies of Gender* (1987), Teresa de Lauretis takes up Michel Foucault's idea of the "technology of sex" and proposes that gender is also "the product of various social technologies" (2). Following Foucault, de Lauretis uses "technology" to refer broadly to a set of systematic practices found, for example, in cinema (e.g., cinematic techniques and codes) that contribute to the social construction of gender. Halberstam's essay extends this concept into theories of computational technology.
- 3. A useful example can be seen in Mark C. Marino's analysis of the work being done by Julie Levin Russo's "Slash Goggles algorithm" (written in the transCoder programming antilanguage) and the AnnaKournikova worm. While both revolve around desire, the worm exploits the heteronormative behaviors that are structured by the web, whereas the algorithm enables the decoding of repressed or subsumed queer desire in mainstream (heteronormative) cultural works ("Of Sex," 200).

Bibliography

- Adler, Melissa. "Paraphilias: The Perversion of Meaning in the Library of Congress Catalog." In *Feminist and Queer Information Studies Reader*, edited by Patrick Keilty, 309–23. Sacramento, Calif.: Litwin Books, 2013.
- Bailey, Moya. "#transform(ing)DH Writing and Research: An Autoethnography of Digital Humanities and Feminist Ethics." *Digital Humanities Quarterly* 9, no. 2 (2015). http://www.digitalhumanities.org/dhq/vol/9/2/000209/000209.html.
- Barnett, Fiona, Zach Blas, micha cárdenas, Jacob Gaboury, Jessica Marie Johnson, and Margaret Rhee. "QueerOS: A User's Manual." In *Debates in the Digital Humanities 2016*, edited by Matthew Gold and Lauren F. Klein, 50–59. Minneapolis: University of Minnesota Press, 2016.
- Berman, Sanford. *Prejudices and Antipathies: A Tract on the LC Subject Heads Concerning People*. Metuchen, N.J.: Scarecrow Press, 1971.
- Bianco, Jamie "Skye." "Man and His Tool, *Again*? Queer and Feminist Notes on Practices in the Digital Humanities and Object Orientations Everywhere." *Digital Humanities Quarterly* 9, no. 2 (2015). http://www.digitalhumanities.org/dhq/vol/9/2/000216/000216.html.
- Bianco, Jamie "Skye." "This Digital Humanities Which Is Not One." In *Debates in the Digital Humanities*, edited by Matthew K Gold, 96–112. Minneapolis: University of Minnesota Press, 2013. http://dhdebates.gc.cuny.edu/debates/text/9.
- Blas, Zach, and micha cárdenas. "Imaginary Computational Systems: Queer Technologies and Transreal Aesthetics." *AI & Society* 28, no. 4 (2013): 559–66.
- Campbell, Alyson, and Stephen Farrier. "Queer Practice as Research: A Fabulously Messy Business." *Theatre Research International* 40, no. 1 (2015): 83–87.
- Chang, Edmond Y. "Queer." In *Digital Pedagogy in the Humanities: Concepts, Models and Experiments*, edited by Rebecca Frost Davis, Matthew K. Gold, Katherine D. Harris, and Jentery Sayers. MLA Commons, n.d. https://digitalpedagogy.mla.hcommons.org/keywords/queer/.

- Chen, Mel. Animacies: Biopolitics, Racial Matter, and Queer Affect. Durham, N.C.: Duke University Press, 2012.
- Collins, Nick. "Live Coding of Consequence." Leonardo 44, no. 3 (2011): 207-11.
- Crompton, Constance, Raymond Siemens, Alyssa Arbuckle, and Implementing New Knowledge Environments (INKE). "Enlisting 'Vertues Noble & Excelent': Behavior, Credit, and Knowledge Organization in the Social Edition." *Digital Humanities Quarterly* 9, no. 2 (2015).
- De Kosnik, Abigail, and Keith Feldman, eds. *#identity*. Under contract with University of Michigan Press.
- De Lauretis, Teresa. *Technologies of Gender: Essays on Theory, Film, and Fiction.* Bloomington: Indiana University Press, 1987.
- Drucker, Johanna. *SpecLab: Digital Aesthetics and Projects in Speculative Computing.* Chicago: University of Chicago Press, 2009.
- Freedman, Jenna. "Queering LCSH." *lower east side librarian* (blog), February 3, 2009. http://lowereastsidelibrarian.info/whatshouldbelcshforqueer.
- Gaboury, Jacob. "A Queer History of Computing." *Rhizome.org* (blog), February 19–June 18, 2013 (5 parts). http://rhizome.org/editorial/2013/feb/19/queer-computing-1/, http://rhizome.org/editorial/2013/mar/19/queer-computing-2/, http://rhizome.org/editorial/2013/apr/9/queer-history-computing-part-three/, http://rhizome.org/editorial/2013/may/6/queer-history-computing-part-four/, http://rhizome.org/editorial/2013/jun/18/queer-history-computing-part-five/.
- Ganin, Netanel. "The Default + My First LCSH Proposal." *I never metadata I didn't like* (blog), August 22, 2015. https://inevermetadataididntlike.wordpress.com/2015/08/22 /the-default-my-first-lcsh-proposal/.
- Ganin, Netanel. "Inconsistency in LGBTQ Terms." *I never metadata I didn't like* (blog), November 22, 2015. https://inevermetadataididntlike.wordpress.com/2015/11/22/inconsistency-in-lgbtq-terms/.
- Ganin, Netanel. "It's Time (It's Past Time) for Queer in the LCSH." *I never metadata I didn't like* (blog), December 13, 2015. https://inevermetadataididntlike.wordpress. com/2015/12/13/its-time-its-past-time-for-queer-in-the-lcsh/.
- Ganin, Netanel. "Up to Date Headings." *I never metadata I didn't like* (blog), November 17, 2015. https://inevermetadataididntlike.wordpress.com/2015/11/17/up-to-date-headings/.
- Gil, Alex. "A Non-Peer-Reviewed Review of a Peer-Reviewed essay by Adeline Koh." @elotroalex (blog), April 20, 2015. http://www.elotroalex.com/a-non-peer-reviewed-review-of-a-peer-reviewed-essay-by-adeline-koh/.
- Gold, Matthew K., and Lauren F. Klein, eds. *Debates in the Digital Humanities 2016*. Minneapolis: University of Minnesota Press, 2016.
- Goldberg, Daniel, and Linus Larsson, eds. *The State of Play: Creators and Critics on Video Game Culture.* New York: Seven Stories Press, 2015.
- Grace, Andre P., and Robert J. Hill. "Using Queer Knowledges to Build Inclusionary Pedagogy in Adult Education." *Adult Education Research Conference*, 2001. http://newprairiepress.org/aerc/2001/papers/26.

- Grace, André P., Robert J. Hill, Corey W. Johnson, and Jamie B. Lewis. "In Other Words: Queer Voices/Dissident Subjectivities Impelling Social Change." *International Journal of Qualitative Studies in Education (QSE)* 17, no. 3 (2004): 301–24.
- Halberstam, Judith [Jack]. "Automating Gender: Postmodern Feminism in the Age of the Intelligent Machine." *Feminist Studies* 17, no. 3 (1991): 439–60.
- Halberstam, Judith [Jack]. *The Queer Art of Failure*. Durham, N.C.: Duke University Press, 2011.
- Haraway, Donna. Simians, Cyborgs, and Women: The Reinvention of Nature. New York: Routledge, 1991.
- Hegarty, Peter. "Queer Methodologies." In Feeling Queer or Queer Feelings? Radical Approaches to Counselling Sex, Sexualities and Genders, edited by Lyndsey Moon, 125–41. London: Routledge, 2008.
- Keeling, Kara. "Queer OS." Cinema Journal 53, no. 2 (Winter 2014): 152-57.
- Koh, Adeline. "A Letter to the Humanities: DH Will Not Save You." Digital Pedagogy Lab, April 19, 2015. http://www.digitalpedagogylab.com/hybridped/a-letter-to-the-humanities-dh-will-not-save-you/.
- Kotter, Wade. "Subject Headings for Queer Studies." *Cataloging Questions & Answers* (blog), The Anthropology and Sociology Section of the Association of College and Research Libraries (ACRL), July 2013.
- Liu, Alan. "Where Is Cultural Criticism in the Digital Humanities?" In *Debates in the Digital Humanities*, edited by Matthew K. Gold. Open access ed. Minneapolis: University of Minnesota Press, 2013. http://dhdebates.gc.cuny.edu/debates/text/20.
- Marino, Mark C. "Of Sex, Cylons, and Worms: A Critical Code Study of Heteronormativity." *Leonardo Electronic Almanac (DAC09: After Media: Embodiment and Context)* 17, no. 2 (2012): 184–201.
- Marino, Mark C. "Why We Must Read the Code: The Science Wars, Episode IV." In *Debates in the Digital Humanities 2016*, edited by Matthew K. Gold and Lauren F. Klein, 139–52. Minneapolis: University of Minnesota Press, 2016.
- Marshall, Joan K. On Equal Terms: A Thesaurus for Nonsexist Indexing and Cataloging. New York: Neal-Schuman, 1977.
- McPherson, Tara. "Designing for Difference." *Differences: A Journal of Feminist Cultural Studies* 25, no. 1 (2014): 178–88.
- McPherson, Tara. "U.S. Operating Systems at Mid-Century: The Intertwining of Race and UNIX." In *Race after the Internet*, edited by Lisa Nakamura and Peter Chow-White, 23–37. New York: Routledge, 2012.
- McRuer, Robert. *Crip Theory: Cultural Signs of Queerness and Disability.* New York: New York University Press, 2006.
- Muñoz, José. *Disidentifications: Queers of Color and the Performance of Politics*. Minneapolis: University of Minnesota Press, 1999.
- Oldman, Dominic, Martin Doerr, Gerald de Jong, Barry Norton, and Thomas Wikman. "Realizing Lessons of the Last 20 Years: A Manifesto for Data Provisioning &

- Aggregation Services for the Digital Humanities (A Position Paper)." *D-Lib Magazine* 20, no. 7/8 (2014).
- Olson, Hope. "How We Construct Subjects: A Feminist Analysis." In *Feminist and Queer Information Studies Reader*, edited by Patrick Keilty and Rebecca Dean, 251–89. Sacramento, Calif.: Litwin Books, 2013.
- Phillips, Whitney. This Is Why We Can't Have Nice Things: Mapping the Relationship between Online Trolling and Mainstream Culture. Cambridge, Mass.: MIT Press, 2015.
- Raley, Rita. "Interferences: [Net.Writing] and the Practice of Codework." *Electronic Book Review*, "Electropoetics" thread. September 8, 2002. http://www.electronicbookre view.com/thread/electropoetics/net.writing.
- Risam, Roopika. "Beyond the Margins: Intersectionality and the Digital Humanities." *Digital Humanities Quarterly* 9, no. 2 (2015). http://www.digitalhumanities.org/dhq/vol/9/2/000208/000208.html.
- Risam, Roopika, and Adeline Koh. "Room for Everyone at the DH Table?" *Postcolonial Digital Humanities*, May 15, 2013. http://dhpoco.org/blog/2013/05/15/room-for-everyone-at-the-dh-table/.
- Roberto, K. R. "Inflexible Bodies: Metadata for Transgender Identities." *Journal of Information Ethics* 20, no. 2 (2011): 56–64.
- Ruberg, Bonnie, ed. "Videogames, Queerness, & Beyond." Special issue, *First Person Scholar*, February 18–March 11, 2015. http://www.firstpersonscholar.com/videogames-queerness-beyond/.
- Ruberg, Bonnie, and Adrienne Shaw, eds. *Queer Game Studies*. Minneapolis: University of Minnesota Press, 2017.
- Schlesinger, Ari. "Feminism and Programming Languages." *HASTAC* (blog), November 26, 2013.
- Sedgwick, Eve Kosofsky. "The Beast in the Closet." In *Epistemology of the Closet*, 182–212. Berkeley: University of California Press, 1990.
- Spade, Dean. "Methodologies of Trans Resistance." In *A Companion to Lesbian, Gay, Bisexual, Transgender, and Queer Studies*, edited by George E. Haggerty and Molly McGarry, 237–61. Malden, Mass.: Blackwell, 2007.
- Sundén, J. "On Trans-, Glitch, and Gender as Machinery of Failure." *First Monday* 20, no. 4 (2015).
- Voss, G. S. "'It Is a Beautiful Experiment': Queer(y)ing the Work of Alan Turing." AI & Society 28, no. 4 (2013): 567–73.
- Wernimont, Jacqueline, ed. "Feminisms and DH." Special issue, *Digital Humanities Quarterly* 9, no. 2 (2015). http://www.digitalhumanities.org/dhq/vol/9/2/index.html.