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Correspondence Fictions:
Critical Literacies and Experiments in Writing Media After Computation

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

English

by

Rochelle K. Gold

June 2015

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ABSTRACT OF THE DISSERTATION

Correspondence Fictions:
Critical Literacies and Experiments in Writing Media After Computation

by

Rochelle K. Gold

Doctor of Philosophy, Graduate Program in English
University of California, Riverside, June 2015
Dr. James Tobias, Chairperson

This dissertation studies postmodern fiction, electronic literature, digital art, locative media, and everyday social media practices from the 1960s to the present. I argue that these experimental literary works and practices of media production serve as models of critical literacy, albeit imperfect ones, that might lead to increased agency, community-building, and self-sovereignty, especially for historically marginalized communities. The four elements of critical literacy I identify in this project are as follows: that critical literacy is non-instrumental, process-oriented, collaborative, and geospatial.

Each chapter highlights one of these attributes at a time, emphasizing its specific value, as well as its potential limitations, within the context of critical literacy. Chapter 2 studies William Gaddis's *J R* (1975), a novel that critiques the literalism of Wall Street and the instrumentalization of education while using its experimental form to propose playfulness, humor, and complexity as possibilities for ethical modes of reading and writing. Chapter 3 considers feminist short-form digital fiction like *First Draft of the*

Revolution (2012), *Digital: A Love Story* (2010), and *Quibbling* (1993) that depict the process of reading as a complex negotiation between material and social constraints that produces the experience of resonance. Chapter 4 focuses on the values of critical cosmopolitanism and collaboration through a study of governance and representation in works of digital art and literature like "Minneapolis and St. Paul are East African Cities" (2003) and "Flight Paths" (2007). Chapter 5 reads the locative narrative *The Silent History* (2013) alongside satirical product reviews on Amazon as revealing the value and limitations of geospatial literacies emerging in contemporary literary forms. Lastly, the conclusion points to the practical and pedagogical implications of experimental media composition.

Ultimately, the project attests to the ongoing importance of the literary as a site of local knowledge production and cross-cultural resonance in light of technologically-mediated, global flows, where the literary appears in a range of forms besides the print book. Moreover, the project demonstrates the potential for literary theory, from a critical and historically situated perspective, to offer valuable new models for understanding what digital literacy is now and for imagining what it might become.

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Chapter 1

Literary Social Media

Yacub, an undocumented immigrant on his way from Dubai to London, falls from the storage compartment of an airplane mid-flight and miraculously survives. He lands in a suburban grocery store parking lot, where he has a strangely positive encounter with Harriet, a startled British housewife, who agrees to take Yacub home with her. This scene from *Flight Paths* (2007-), a collaboratively authored digital "networked novel," offers hope and cross-cultural resonance in a narrative providing an otherwise gritty portrayal of globalization. Made up of text, image, and sound submitted via email by dozens of individuals from around the world, *Flight Paths* is an experimental hypermedia project that transforms established notions of the literary by demonstrating how social media practices, in this particular case email, and literary forms combine to create powerful new genres of transnational writing.

Drawing on a range of innovative literary forms, including novels narrating displacement and belonging in global networks, experimental postmodern novels, hypertext fiction, digital art, and locative fiction, as well as on a range of literary practices operating within everyday social media use, this dissertation project proposes to read social media through the lens of literary value in order to trace a recent history of contemporary writing that I call "literary social media." I use the term literary social media to encompass a wide range of literary forms that are fundamentally structured by technologies of social correspondence, including but not limited to phone calls, letters,

emails, and social networking. In this way, I seek to make visible the literary genealogy of social media, a term that is at once ubiquitous yet also difficult to precisely define.

What is Social Media?

In the introduction to *The Social Media Reader* (2012), Michael Mandiberg characterizes "social media" as an umbrella term that describes the increasingly blurred lines between media producers and media consumers in the 2000s. Other critics use their own terminology; for instance, Yochai Benkler refers to "peer-production," a term that favorably contrasts our everyday media practices in the twenty-first century with the ostensibly more passive and hierarchical spectatorship practices around mass media in the twentieth century. Benkler argues for the power of peer-production to radically overturn the status quo and allow individuals to "act and cooperate with others in ways that improve the practiced experience of democracy, justice and development, a critical culture, and community" (9). Although he cautions against techno-utopianism, Benkler's claims reflect a tendency towards just that in much scholarship on digital media as he optimistically suggests that social media tends towards producing public good and that it can challenge injustice on a global scale.

Drawing from business-oriented definitions of social media like Tim O'Reilly's "Web 2.0,"[1] as well as scholarly ones, such as Benkler's "peer production" and Henry Jenkins's "participatory media," discussed below, Mandiberg implicitly privileges the

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[1] Geert Lovink offers a compelling critique of this issue in *Dark Fiber*. He writes, "the theory sector avoided the real existing net and its practitioners and left the task of defining the bubbling field to business gurus" (5).

early 2000s as the time when the full capabilities of social media were realized, even if he acknowledges earlier precursors. In this way, Mandiberg's definition of social media narrowly emphasizes the very recent past. On the other hand, some media critics have shown that the emphasis on the "new" in new media studies is highly ideological, and, they have argued for the need to place new media technologies, texts and practices within a historical framework. So, for instance, rather than simply focusing on what is new, Lister et al. suggest that "a better approach is to look for different ratios of the old and the new across the field of new media" (47). Studies of digital media predating the advent of the social networking site as it has been conventionally understood since the rise of Napster, Friendster, or Facebook explore the social aspect of late twentieth century computing even if they do not refer to their objects of study as "social media."[2] In this way, discussions of social spaces like MUDs by Espen Aarseth (1997) and Sherry Turkle (1997), and of the specific features of digital texts like hyper-linking by George Landow (1992), offer an expanded sense of social media, one that emerges with computing technologies beginning in the 1970s.

Also taking a more expansive approach to digital sociality than Mandiberg's definition allows, Christopher Kelty's *Two Bits* (2008), a scholarly ethnography about computer programmers and digital content producers working, in locations around the world, to design, execute, and deploy information projects constructed with "free" or "open" software systems, offers a historical take on how programmers have shared

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[2] For a detailed discussion of the history of social networking sites, see danah m. boyd and Nicole Ellison's "Social Network Sites: Definition, History, and Scholarship" (2007).

information and worked collaboratively from the early days of networked computing to

the present. Kelty argues that free software,

> is not simply a technical pursuit but also the creation of a "public," a collective
> that asserts itself as a check on other constituted forms of power—like states, the
> church, and corporations—but which remains independent of these domains of
> power. Free Software is a response to this reorientation that has resulted in a
> novel form of democratic political action, a means by which publics can be
> created and maintained in forms not at all familiar to us from the past. Free
> Software is a public of a particular kind: a recursive public. Recursive publics are
> publics concerned with the ability to build, control, modify, and maintain the
> infrastructure that allows them to come into being in the first place and which, in
> turn, constitutes their everyday practical commitments and the identities of the
> participants as creative and autonomous individuals (7).

In this way, Kelty argues that "a novel form of democratic political action" is surfacing in

the everyday practices of computer programmers as they communicate with one another

through digital networks even as they are in the process of creating and maintaining these

very networks. In spite of his claims for novelty, Kelty provides a vision of computer-

supported social correspondence that produces similar kinds of public association as

envisioned by Jürgen Habermas (1989), who has proposed broad participation and critical

discourse as the key features of an ideal public sphere.

Of course, Habermas has been widely critiqued for imagining an exclusionary

public sphere based upon the "propertied and educated" bourgeois citizen (37), and

Kelty's work in some ways follows suit by reimagining the digital public sphere based on

an updated set of techno-exclusions: access to high bandwidth networked computing and

literacy in coding languages.[3] As I discuss in more detail in chapter 3 and 4, Kelty's

public sphere, which he refers to as a "recursive public," needs revision as it threatens to

amplify the marginalization of historically under-represented groups. Nevertheless,

Kelty's work points to the ongoing critical discourse occurring through digital social

networks over the last several decades, thereby providing an in-depth—albeit somewhat

techno-utopian—recent history of what social media can offer us. Building upon Kelty's

gesture towards a deeper history of social media extending into the twentieth century, my

project explores this larger history, and demonstrates its intersections with other histories,

including those of post-colonial literature and criticism, queer literature, media, and

theory, and feminist literature and theory.

All of the above-mentioned contributions to the field of digital media studies,

perhaps barring Aarseth's *Cybertext*, to a certain extent share a problematically

romanticized view of how social media can revolutionize or democratize hyperindustrial

society.[4] Another thing these various histories have in common is what they omit: literary

value is almost never invoked as an aspect or a concern of the origin story of social

media. In most of these histories, programmers, gamers, and academics, along with

military and corporate interests, are frequently cited as primary influences on the

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[3] Both Kelty and Habermas point to literacy as the key for a functioning public sphere. For Habermas, the public sphere also hinges on the value of the literary as opposed to the value of mass media. Habermas writes, "mass media today strip away the literary husks from the kind of bourgeois self-interpretation and utilize them as marketable forms for the public services provided in a culture of consumers" (171).

[4] Bernard Stiegler uses the term "hyperindustrial" to refer to our contemporary historical period. While others use terms like "post-industrial," "information society," or "late capitalism" to periodize the present moment, Stiegler's use of the term "hyperindustrial" (30) or "hyperindustrial *service* economies" (33, his emphasis) compellingly registers ongoing processes of industrialization begun in the nineteenth century while also acknowledging more recent transformations in locations of industrial production and temporalities of capitalism.

development of the internet in general, and social media in particular, as we know it today. As a result, the literary is, very often, not understood as a significant influence on or product of evolving digital technologies. Nevertheless, influential media critics like Marshall McLuhan (1962), Lev Manovich (2001) or George Landow (1992) have drawn from poetics, cinema, and literary theory respectively in order to theorize digital technologies. Similarly, Friedrich Kittler (1992) draws on literary histories in order to theorize media technologies, but Kittler, from a more technologically determinist perspective, ultimately claims the values of literary networks—associated with self-reflection and social legibility—have been effectively subjected to those of machine networks.

In spite of these interventions revealing the entanglement between computing technologies and literature more generally, none of these critics explore the connection between social media and literature. If one of the values of the literary is surely its sociality, then the sociality of the literary has still generally not been understood as a contributing factor to the sociality of digital social media. Henry Jenkins's research on fan cultures is a notable exception, as it has brought critical attention to the importance of fan fiction written by readers that expands upon, re-writes, or remixes pre-established narrative worlds such as those of *Star Trek*, *Star Wars* or the *Harry Potter* novels. For Jenkins, as I discuss in more detail in chapters 3 and 4, the popular artistic and literary production associated with "participatory culture" has the potential to create new communities and to model practices of participatory citizenship. Fan fiction, which circulates through blogs or other social media, thus demonstrates the potential for literary

experimentation within social media networks. While fan cultural production produced in response to commercial media forms dominates our understanding of how literature and social media might come together, in reality, fan fiction is only one narrow possibility amongst a wide range of expressive and innovative outcomes that become conceivable once we expand our view of the importance of literary genealogies for social media's dynamism. This project aims to provide this wider perspective in the interest not simply of more descriptive histories but also in terms of more ethical, imaginative, and resonant uses of computing for the future.

One of the reasons why the deeper and wider history of literary social media, before the 2000s and beyond fan fiction, remains hard to see is because social media can seem like the antithesis of the literary, as we have come to think of reading literature as a fundamentally anti-social activity in the twentieth century. American novelist Jonathan Franzen's book of essays *How to be Alone* (2002) epitomizes the notion that reading literature is a solitary, transcendental act that provides a level of deep engagement not found through other media technologies like television. Kathleen Fitzpatrick argues that in response to the perceived threat of new media technologies, many contemporary novelists invest heavily in masculinist, individualist models of both composing and reading literature that preserve the historical cultural centrality of literature and the literary author that these novelists most benefit from. While discourse of literary depth as autonomous, individual, alienated, and tending to be gendered masculine has become widely universalized, Fitzpatrick and other feminist scholars convincingly push back against this flattening of diverse ecologies of reading, as they demonstrate that literature

has been a social media form at various points in history, especially before the advent of cheap printing practices in the 19th century, when books were much more expensive and people commonly shared copies and read aloud to one another. Moreover, Janice Radway's groundbreaking study *Reading the Romance* (1984) traces the threads linking readers, books, and bookstores into a larger literary network in order to reveal that sociality has been essential to women's experiences of reading popular literature in the second half of the twentieth century, even before the advent of personal computing. Radway interviews Dorothy Evans, a woman working at a small town mid-western bookstore, about her influential newsletter on romance novels. Evans's newsletter, which was directed at both so-called ordinary female readers and at the New York based publishing industry, mediated between the demands of readers looking for romance novels to suit their taste and the publishing industry trying to discern what readers were looking for (46-47). As I discuss further in chapters 3 and 5, Radway's study makes visible the range of networked literary practices well in place before the spread of digital technologies like email, listservs, and, more recently, social reading websites like Goodreads, which address readers, authors, and publishers, just as Evans' newsletter once did.

Contemporary Transformations in Literary Forms

But, especially after advances in literary analysis deconstructing given distinctions between literature and language or writing "in general," what does the term "literature" even refer to at this point in time? This dissertation focuses on American

literature engaging questions of transnationalism in global networks from the 1970s to the present, a period dominated in critical terms by consideration of postmodern experiments in literature. For Fredric Jameson (1991), postmodernism is characterized by a flat, ahistorical sensibility and "a waning of affect" (10), resulting from the deep entanglement between postmodern cultural production and global capitalism. From a different perspective, Brian McHale (1987) finds more potential value in postmodern literary works as he contends that they raise ontological questions by calling into doubt any notion of a shared reality between individuals. While Jameson then generally dismisses the potential for postmodern literary works to engage in any kind of sustained critique not easily coopted by late capitalism, McHale's focus on ontological questions reveals that the uncertain nature of reality in postmodern literature can offer a new lens for rethinking our social relations within what I am considering hyperindustrial contemporary culture. At the same time, McHale's work may underestimate the value of sociality in literature through its emphasis on the uncertainty of postmodern being.

Before we can trace the linkage between social media and literature after computing, from the second half of the twentieth century to the present, we need to understand the profound transformation the idea of literature has undergone during this period, due in large part to the influence of innovations in digital computing as well as literary postmodernism discussed above and hyperindustrial globalization. The increased entanglement between literary forms and computing reveals an expanded sense of what the literary might look like since contemporary literary forms, especially digital ones, often incorporate sound, image, and movement in addition to text. N. Katherine Hayles

contends that because contemporary literature is inextricably entwined with digital technology, the term "electronic literature," which typically describes hypertext literature like *Flight Paths*, should actually be applied to the vast majority of contemporary literature. Hayles suggests that as print literature is increasingly produced digitally (and, one might add, is increasingly available to be archived, downloaded and read in digital format as well), all literature becomes electronic literature and print becomes simply one possible "output for digital files rather than a medium separate from digital instantiation" (2008, 159).[5] Hayles also argues that postmodern print novels like Mark Danielewksi's *House of Leaves* (2000), Salvador Plascencia's *People of Paper* (2005), and Jonathan Safran-Foer's *Extremely Loud and Incredibly Close* (2005) all bear the "mark of the digital" due to their experiments with type-script and layout that are only made possible because of digital technologies (159). Hayles's premise that print and digital literary works must then be considered in relation to one another as part of a complex media ecology offers an important justification for thinking across platforms as print and digital literary forms shape one another.

Correspondence Fictions as Literary Social Media

Another transformation in the literary is an increased move towards social literary forms. In that vein, Alan Liu has argued that in the twenty-first century, reading is now becoming "social computing," and, building upon this idea, this dissertation examines

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[5] In emphasizing the similar digital production processes of print and digital literature, Hayles's broad application of the term electronic literature in some ways elides the significant material differences between print and digital literature as experienced by the reader; nonetheless, her concept of "intermediation," which theorizes digital literacy as a series of overlapping feedback loops between human and machine is highly attuned to digital materiality

literary social media as entangled with computation, sometimes in ways that are deeply historical as they may be unexpected. Drawing from two distinct pre-digital traditions—the epistolary novel and networked art—I gesture towards two of the genealogies from which literary social media emerges. The epistolary novel in English was popularized beginning in the eighteenth century, as exemplified by works like Samuel Richardson's *Clarissa* (1748), and has continued to proliferate to this day. Epistolary novels function as literary social media because, as they emphasize the back and forth of correspondence between fictional characters (and between the reader), they underscore the communication process itself as much as what is being communicated. The epistolary novel thus provides a link between historical literary practices and contemporary social media since both engage correspondence as a key problematic. Because the epistolary genre engages with everyday life, and in particular with the apparently lowly task of correspondence, Gilroy and Verhoeven (2000) demonstrate the longstanding association between epistolary novels and feminine discourse. While the epistolary tradition continues into the present day, it has responded to technological changes with new sub-genres, including what Laura Rotunno refers to as "email novels." Moreover, some contemporary epistolary novelists point towards new political valences as they create epistolary fiction that is more feminist than feminine. For instance, Linda S. Kauffman argues that Kathy Acker's experimental epistolary novel *Don Quixote* offers a feminist "anti-aesthetic" which mixes high and low cultural forms and wields the style of literary postmodernism "as an oppositional politics rather than a mere pastiche" (201). According

to Kauffman, Acker's postmodern epistolary fiction then provides a much more pointed political critique than McHale or Jameson, especially, might imagine or allow for.

As contemporary hyperindustrial culture presents us with an abundance of opportunities for correspondence, each, of course, circumscribed by or entangled with limits and exclusions, historically gendered literary forms like epistolary novels grappling with correspondence, everyday life, and intimacy across distance take on renewed significance, and they help us to rethink both the literary roots of social media, and, more importantly, the literary values of social media—however poorly or spectacularly such values may be manifested in contemporary social media. This dissertation explores a number of literary works that borrow and rewrite epistolary techniques after computation seeped deeply into everyday U.S. media, including William Gaddis's *J R* in chapter 2 as well as Carolyn Guyer's *Quibbling* and Christine Love's *Digital: A Love Story* in chapter 3. Moreover, all of the chapters reflect the influence of epistolary criticism as they read instances of social correspondence as literary texts.

Turning from literary history to the broader field of artistic and cultural production, the experiments in correspondence conducted most prominently during the 1960s, 70s and 80s, known in different contexts as networked art, mail art, telecommunications art, or correspondence art,[6] provide another predecessor for literary social media. These projects focus on turning everyday modes of correspondence, such as sending and receiving mail through the postal system, into art. Craig Saper's influential

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[6] For a more detailed discussion of particular projects, see Annmarie Chandler and Norie Neumark, *At a Distance: Precursors to Art and Activism on the Internet* (2005) or Michael Crane and Mary Stofflet, *Correspondence Art: Source Book for the Network of International Postal Art Activity* (1984).

study demonstrates how pre-digital networked art, like mail art or art based on forged currency, can intervene in large impersonal systems like the postal service or the monetary exchange system respectively in order to create smaller networks of intimate correspondence, which Saper refers to as "intimate bureaucracies" (xii). Similarly, Alan Liu's consideration of "nice work" suggests that literary texts (and the humanists who write them and/or write about them) must become intimate with corporate information networks, instead of simply condemning them, in order to transform networked bureaucracies from within. Liu's "nice work" potentially takes Saper's "intimate bureaucracies" one step further by arguing that not only can creative production occur inside large, primarily economically-motivated networks, but that those networks can also be transformed by creative labor. Chapters 2 and 5 most directly address questions about how our vast commercially dominated digital infrastructure might be used to create moments of intimacy, resonance and change within the larger culture. Nonetheless, questions of how the literary engages with vast, instrumental networks surfaces in each chapter.

In some ways, epistolary novels and networked art are opposites: while the epistolary mode transforms literature into or models it as private and public correspondence, networked art transforms correspondence into literary form. However, both epistolary novels and networked art exemplify that even before the advanced networked capabilities of contemporary digital media became available, literary forms and modes of correspondence have intermingled in print but without necessarily operating as or warranting the presumed benefits of some version of a historical public

sphere. In this way, the concept of literary social media extends well into the pre-digital past, especially in the case of the epistolary genre; however, this dissertation pays particular attention to contemporary instantiations of literary social media, which often emerge in response to or through the use of more recent digital communications technologies and the hyperindustrial context in which such technologies tend to be associated with privatization and consumption. As epistolary forms and networked art both offer models for communication across distance, this dissertation explores how literary social media relies on the literary to reconfigure globalized space, whether in positive or negative terms, or, at times, both.

The Importance of Place

Two phenomena, the widespread adaptation of digital communications networks and the global spread of policies and practices of neoliberalism, have contributed to changing notions of "distance" and place in the late twentieth and early twenty-first century. In the popular imagination, digital communications have frequently been understood as part of a so-called virtual reality, divorced from the physical constraints of bodies, hardware, and place. For instance, the term "cyberspace," which was popularized by science fiction writer William Gibson, reflects this view of networked digital communications as "a place in which things happened, in which users' actions separated from their bodies, and in which local standards became impossible to determine" (Chun 37). Wendy Chun has fiercely contested the ideological implications underlying the term cyberspace, which elide the materiality of digital communications networks, erase the

physical infrastructure and labor determining how they operate, and deny the influence of local conditions. Chun's work thus points to the continued significance of embodiment and place in digital information cultures. Saskia Sassen similarly emphasizes that online correspondence intertwines with life offline, as there are always "limits, friction and lumpiness in…apparently seamless spaces of circulation" (350). Nevertheless, citing digital finance networks and political activist movements that have ties to local sites but that also operate transnationally or even globally, Sassen claims that digital technologies reconfigure space even while echoing historical problematics of sovereignty, subjectivity, and embodiment by creating new "global assemblages." The concept of global assemblages provides a mode for understanding how digital correspondence transforms our relations to physical space in meaningful ways and yet still remains material and rooted in local sites.

As mentioned above, the ongoing phenomenon of neoliberal globalization, which creates new kinds of economic, social, and cultural relations between geographically distant individuals and groups, complicates notions of place, and particularly notions of the local. More specifically, the term "neoliberal globalization" refers to the worldwide spread of free-market capitalism from the second half of the twentieth century to the present and the global effects, including the fraught relationships between bodies, capital, and space.[7] While neoliberal globalization might seem like a monolithic phenomenon, Aihwa Ong demonstrates that neoliberalism functions distinctly, unevenly, and contingently based on local context, in a Foucauldian sense, not "as culture or structure

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[7] For a more detailed discussion of neoliberalism, see David Harvey's *A Brief History of Neoliberalism* (2005).

but as mobile calculative techniques of governing"(13). Neoliberal globalization and networked digital communications then together create complex conditions of transnational interdependence, entanglement, and exploitation. In the field of literary studies, Graham Huggan (2001) and Sarah Brouillette (2007) have demonstrated that global literary production and circulation networks, which depend heavily on economic and cultural capital from local sites like New York and London, function according to the logics of neoliberal globalization, even as the literary forms themselves often aim to interrogate and disrupt neoliberal conditions. While these foundational critical interventions focus on print literary forms, my project turns to a mixed literary ecology consisting of print and digital forms, in order to trace ongoing connections and disconnections between neoliberal globalization and the literary. Returning to Saper's notion of "intimate bureaucracies" and Liu's notion of "nice work," this dissertation asks: how might we produce meaningful social intimacies and find imaginative possibilities within exploitative global economic networks? And in particular, how do values associated with literary and literate correspondence, whatever the medial substrate, provide us with these opportunities?

Methodology: Reparative Reading and Resonance

Throughout the dissertation, I argue that fictions of correspondence offer fertile ground for thinking through how individuals and groups use networks even as they, to paraphrase Wendy Chun, are being used by networked systems. Turning to theories of affect allows us to reconsider how literary networks of correspondence present new kinds

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of intimate social relations. Eve Kosofsky Sedgwick's methodology of "reparative reading," which emerges from her work in queer theory, proposes an antidote to the more common critical approach of our time, which Sedgwick characterizes as "paranoid reading." Paranoid reading strategies seek to make the invisible and ubiquitous workings of power visible for their readers by revealing imperialist, racist, sexist, classist, and homophobic ideologies inherent in culture. In spite of these undoubtedly admirable goals, Sedgwick suggests that paranoid reading tends to simply tell us *what we may already know*, and, that it leaves little room for individuals to make meaning within a culture rendered as inextricably bound to the oppression of non-normative subjects. In spite of these concerns, paranoid reading has problematically become the dominant credible framework for engaging with power as any other approach "has come to seem naïve, pious, or complaisant" (Sedgwick 126).

Moving away from the "tracing-and-exposure project" of paranoid reading (124) and towards an attempt to bring about more inclusive and egalitarian social relations through a reading practice that is "additive and accretive" (149), Sedgwick ultimately advocates for "reparative reading," which encompasses a wide range of affective modes of reading beyond the pervasive paranoid one. For Sedgwick, the turn towards reparative reading stems from the fear that "the culture surrounding it is inadequate or inimical to its nurture; it wants to assemble and confer plentitude on an object that will then have resources to offer an inchoate self" (149). As a result, reparative reading offers surprise, both "terrible" and "good," and hope, which although "often a fracturing, even a traumatic thing to experience, is among the energies by which the reparatively positioned

reader tries to organize the fragments and part-objects she encounters or creates" (146).

Openness to surprise represents the key aspect differentiating reparative reading from

paranoid reading, which is committed to avoiding surprise at all costs. Sedgwick thus

suggests that reparative reading may allow the kind of future not imaginable from a

paranoid paradigm. She writes,

> The dogged, defensive narrative stiffness of a paranoid temporality, after all, in
> which yesterday can't be allowed to have differed from today and tomorrow must
> be even more so, takes its shape from a generational narrative that's characterized
> by a distinctly Oedipal regularity and repetitiveness: it happened to my father's
> father, it happened to my father, it is happening to me, it will happen to my son,
> and it will happen to my son's son. But isn't it a feature of queer possibility—only
> a contingent feature, but a real one, and one that in turn strengthens the force of
> contingency itself—that our generational relations don't always proceed in this
> lockstep? (147)

In this way, Sedgwick argues that reparative reading offers the "queer possibility" of

change and difference across time, allowing us to see what the paranoid reading refuses.

Although Sedgwick does not elaborate in great detail upon how reparative reading might

be applied, this dissertation project works through that question by exploring a range of

texts that themselves potentially exemplify a reparative hermeneutic as they circulate

opportunities for surprise and resonance through their deployment of both innovative

formal strategies and innovative uses of media technology.

Further, my methodology for considering this circulation of affect in

contemporary social networks draws from Susanna Paasonen's work on resonance, which

she develops from queer and feminist theories of viewing networks in an attempt to move

"away from ideology, meaning and signification and toward the sensory, material,

embodied, and energetic" (9). The move away from ideology towards more nuanced

paradigms for theorizing reading and writing has been widespread, not only in the work

of critics engaged with affect theory, but also in works like Christopher Kelty's

previously mentioned *Two Bits*.[8] However, Paasonen's work significantly introduces the

term "resonance" as a way to theorize "moments and experiences of being moved,

touched, and affected" (16). In the case of Paasonen's work, these moments occur within

networks of online pornography; in the context of this dissertation, I explore resonance

within circuits of literary social media. I argue that it is the reparative quality of literary

correspondence, its ability to move and surprise us and to resonate with us, that makes

the literary deeply *valuable* in contemporary culture and that gives it the potential to

transform information cultures for the better, even as our variegated networks of

producing, archiving, and accessing the literary might themselves be transformed in the

process.

Chapter Plan

The following dissertation chapters study correspondence fictions in order to

reveal how literary social media, when read reparatively, offers intimacy, resonance, and

hope without naiveté from within networked cultures. Moving through a range of forms,

including the postmodern novel in chapter 2, short-form digital fiction in chapter 3,

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[8] Kelty points out that ideology is not a productive lens for understanding free software and/or open source movements because individuals engaged in similar practices often have widely divergent ideologies. He writes, "If two radically opposed ideologies can support people engaged in identical practices, then it seems obvious that the real space of politics and contestation is at the level of these practices and their emergence. These practices emerge as a response to a reorientation of power and knowledge, a reorientation somewhat impervious to conventional narratives of freedom and liberty, or to pragmatic claims of methodological necessity or market-driven innovation. Were these conventional narratives sufficient, the practices would be merely bureaucratic affairs, rather than the radical transformations they are" (116-17).

collaborative digital art and literature in chapter 4, and locative media and user-generated

content in chapter 5, I demonstrate how correspondence fictions offer new insight into the

role of the literary in contemporary culture. Many of these works would be considered

something like what Gilles Deleuze and Felix Guattari call "minor literature," as they are

experimental, formally innovative, and often not widely disseminated. For Deleuze and

Guattari, "minor literature" is intensely powerful, as it creates "the revolutionary

conditions for every literature within the heart of what is called great (or established)

literature" (19). The works discussed throughout this dissertation are not necessarily

"revolutionary," but they do offer models of expression that challenge dominant practices

of literacy and that point towards promising future literacies. Just as Deleuze and

Guattari's "minor literatures" create their own form of expression within an established

tradition, the works studied here speak the language of hyperindustrial techno-culture

even as they challenge the hegemonic norms of this language and propose imaginative

alternatives.

Chapter 2, "A Networked Education: Big Data, Literary Experiments, and

Correspondence Literacy in William Gaddis' *J R*," opens the dissertation in the 1960s

and 70s in the U.S. during a time of rapid economic and technological transformation.

Alongside these changes, artistic and literary genres like networked art and the

postmodern novel emerged to critique the empty and/or self-contradictory discourses

driving some of these changes. Emerging from literary postmodernism, William Gaddis'

J R (1975), a 726 page novel written entirely in dialogue with no speaker attributions,

tells the story of an elementary school student named J R who learns about the stock

market through a class project and decides to send away for more information through the mail. Within months, J R becomes tremendously wealthy, owning a vast portfolio of stocks, even as he continues to reinvest his earnings in ethically questionable new ventures. Building upon scholarly critiques of networked capitalism in Gaddis's writing by Thomas LeClair (1981), Tim Conley (2003), and Joseph Tabbi and Rone Shaver (2007), this chapter argues that *J R* uses information overload, that is, for my purposes, what is generally referred to, in more optimistic hopes of its malleability, as "big data" in the digital humanities, to interrogate the ethics and possibilities of distance education, presented as television broadcasting in the novel, as the novel questions the instrumentalization of education in corporatized information cultures. At the same time, I argue that, in its formal innovation, *J R* models something like what Alan Liu has described as "nice work" and what Craig Saper calls "intimate bureaucracies" through its experimental form. This chapter draws on close readings from *J R* and archival documents from Gaddis's corporate work on the educational effects of television located at Washington University in St. Louis. I also consider here historically relevant experiments in networked media such as Eliza, a 1960s computer program designed to imitate a therapist, in order to demonstrate how educational and economic networks intersect, generate shared knowledge and challenge one another in *J R*.

Moving from the print novel to digital literary forms, from the "big data" of a massive postmodern novel to the "small data" of short-form fiction, and from the corporate networks of global capital to the intimate networks of interpersonal relationships, chapter 3, "Reading as Fluid Process: Feminist Fictions of Digital

Literacy," explores fictions of correspondence in hypertext. In the late 1980s and early 1990s, coinciding with the rise of affordable, programmable personal computers with graphical user interfaces, a number of influential hypertext fictions were authored on Storyspace, a text-based program for composing hypertext. Carolyn Guyer's *Quibbling* (1993) depicts the lives of four couples through a series of loosely connected vignettes, or, as Guyer describes it, *Quibbling* is "hardly about anything itself, being more like the gossip, family discussions, letters, passing fancies and daydreams that we tell ourselves to make sense of things" (Landow 243). Guyer herself, along with critics like George Landow as well as other hypertext authors like Shelley Jackson, have suggested that the dispersed quality of hypertext, and particularly the interactivity it demands of readers,[9] creates a new kind of feminized composition, where reading becomes social and is enacted in modalities of correspondence.

This chapter, drawing upon theories of reading and interactivity as articulated by a range of media critics including Janice Radway (1984), Espen Aarseth (1997), George Landow (2005), Katherine Hayles (2005), and Susanna Paasonen (2011), studies how feminist works of short-form fiction imagine reading as a fluid process. Bringing together Guyer's *Quibbling* with Christine Love's *Digital: A Love Story* (2010), a romance story set in the 1980s and told through BBS posts, and Emily Short and Liza Daly's *First Draft of the Revolution* (2012), a historical epistolary narrative about mounting social tensions a year before the start of the French Revolution, I argue that each proposes a unique but overlapping model for feminist engagement with digital literacy: data visualization,

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[9] Bernd Wingert's "Quibbling, or Riddling the Reader" (1999) in *dichtung-digital* offers a detailed discussion of the three reading tasks involved in understanding *Quibbling*.

feedback loops, and archeological uncovering respectively. All three of these works self-reflexively depict the processes of reading and writing along with the material constraints around our literacy practices; in doing so, they reimagine digital interactivity against the grain of critics like Henry Jenkins, who privileges broad participation, and Christopher Kelty, who prioritizes coding, as the key elements of meaningful digital literacy. The design and interactivity of these works point to reading—more than, but not necessarily opposed to, composing—as the key feminist act with the greatest potential to produce moments of intimacy, surprise and affinity between individuals.

Moving from text-centric to multimedia digital narratives, chapter 4, "Reparative Social Media: Critical Cosmopolitanism, Collaboration, and Transnational Literacies in Digital Art and Fiction," considers "Minneapolis and St. Paul are East African Cities"(2003), a curated and designed experiment of auto-ethnographic hypermedia archiving based on the social media contributions of digital material, now familiar as the digital material typically associated with social media's user-generated content, by nineteen Minnesota-based East African teenagers. Through its exploration of the refugee experience of the contributors, "Minneapolis and St. Paul" shares some similarities with the hacktivism and political net art described in Rita Raley's *Tactical Media* (2009). Nevertheless, while Raley's term "tactical media" primarily encompasses projects seeking to reveal global political and economic injustice and to disrupt exploitative networks, "Minneapolis and St. Paul" instead enacts something like what Eve Kosofsky Sedgwick has called a "reparative" model by emphasizing emerging networked affinities between the contributors. The contributors engage in digital composition even as the

project imagines literacies expansively, working against narrow associations around young adults as "digital natives." Drawing upon critiques of cosmopolitanism by Timothy Brennan (1997), Lisa Nakamura (2002), and Rebecca Walkowitz (2006), this chapter considers how cosmopolitan resonances surface in collaborative digital art projects like "Minneapolis and St. Paul," along with how they appear in other contemporary correspondence narratives of immigration, including the ongoing collaboratively authored hypermedia *Flight Paths* (2007-) and Dave Egger's recent fictional memoir *What is the What* (2006). This chapter considers how the above-mentioned, largely non-fictional collaborative literary experiments reimagine reading, authorship, and the potential for meaningful social relations across time, space, and social or subjective difference.

Questions of place and the literary appearing in the chapter 4 continue into chapter 5, "Reimagining Everyday Literacies: Geospatial Orientation and Literary Values," which focuses on mobile and social media. While the previous chapter emphasizes web-based multimedia works geared at personal computers, chapter 5 traces how mobile computing, in the form of laptops, smart phones, and more recently, tablets, has brought further changes to experiments in digital literary forms as critics like Jason Farman (2012) have identified. This chapter explores two examples of digital literary forms that raise questions about place and space, revealing the need for geospatial literacies. First, I study *The Silent History* (2013-), a digital novel for iPads and iPhones that also includes supplemental location-based accounts tied to GPS. Through a series of different narrators, *The Silent History* tells the story of an epidemic of muteness that

serves as a metaphor for technological dependence, and, at the same time, it gestures towards more expansive possibilities for what future communication media might look like. Next, circling back to questions of satire raised in chapter 2, I turn to the everyday literary practice of writing, reading and sharing satirical product reviews on commercial websites like Amazon. Focusing on reviews for the BIC Cristal For Her Ball Pen, a ballpoint pen marketed towards women, I explore how users imaginatively repurpose commercial online spaces for feminist ends while at the same time the homogenous rhetoric potentially amplifies other forms of exclusion related to race and sexuality. Ultimately, both *The Silent History* and satirical Amazon product reviews demonstrate how we might strategically and tactically deploy the literary in our everyday lives, even as they each reveal the challenges of using digital technologies to engage with local sites.

Finally, the dissertation closes with "Critical Literacies, Pedagogy and 'Real World' Application," a brief conclusion about the production of a work of digital fiction in Vancouver in 2014 that illustrates the possibilities and challenges of developing critical literacies. Drawing on feminist, queer, and postcolonial criticism, as well as scholarship in digital media studies and composition studies throughout the dissertation, I conclude by identifying the following 4 attributes of critical literacy—that it is 1) non-instrumental, or at least not primarily instrumental in the sense that meaning arises as a result of computational instrumentalities 2) process-based, as it emphasizes reading as an ongoing process of becoming 3) collaborative, in the sense that it allows us to explore the social possibilities of writing and reading literary works, and 4) attentive to location, situating local nodes within broader spatial networks. I suggest that these attributes have

vital pedagogical applications as they enable us to think of literacy as deeply connected to

ethics, governance, and communal and self-expression.

Chapter 2

A Networked Education: Big Data, Literary Experiments, and Correspondence Literacy
in William Gaddis' *J R*

Networked media that allow us to easily archive, search and share data may create

conditions for "native digital" reading and writing, but they surely also recreate, in key

ways, what we have previously called "distance education," where teaching and learning

can happen outside of the classroom space.[1] In the present moment, a great deal of

controversy exists about the proliferation of distance learning initiatives. For some,

distance learning is simply part of the corporatization of education, a phenomenon,

discussed at length by Bill Readings (1997), where institutions of learning operate in

response to market forces. Critics of distance education often cite MOOCs (Massive

Open Online Courses), free online classes consisting of pre-recorded lectures on

specialized topics and administered through private companies such as Coursera,

Udacity, and edX, as an example of how the push towards making education more scale-

able and results-oriented undermines opportunities for actually meaningful learning as

well as substantive knowledge production.[2]

In response to a sense that MOOCs and other present-day distance education

initiatives tend to threaten the values most central to a liberal arts education by

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[1] For critics like Jennifer Sumner, digital learning is part of the broader historical trajectory of distance education.

[2] In spite of a great deal of excitement about MOOCs, critics have pointed out that the extremely low completion rates suggest that these courses are not the runaway success that they are sometimes made out to be by MOOC providers. See Katy Jordan's interactive data visualization "MOOC Completion Rates: The Data" for an in-depth look at these numbers as well as Elizabeth Losh's *The War on Learning* (2014) for a discussion of contemporary debates on online education.

emphasizing "practical" fields of study, outsourcing teaching, and preventing students from interacting meaningfully with one another and with their instructors, some educators have begun to look for alternative paradigms. In 2013, the MacArthur foundation sponsored "Reclaim Open Learning," a contest that showcases experiments in distance education meant to be critical, imaginative, and even visionary.[3] One of the winners, a Distributed Open Collaborative Course (DOCC) called "Dialogues on Feminism and Technology" designed by members of the FemTechNet collective, offers an alternative to the lecture model that Massive Open Online Courses (MOOCs) rely upon through its use of video dialogues rather than video lectures. The FemTechNet website contrasts the MOOC, seen as "pedagogically centralized and branded by a single institution," with the DOCC which "recognizes and is built on the understanding that expertise is distributed throughout a network, among participants situated in diverse institutional contexts, within diverse material, geographic, and national settings, and who embody and perform diverse identities."[4] By foregrounding social interaction, dialogue and participation over values like expertise and scale favored by MOOC advocates, DOCCs represent one potentially hopeful—albeit still in process and not necessarily sustainable—vision for what learning within media networks might look like.

Rather than reimagining institutional education, other critics like Yochai Benkler and Henry Jenkins look to informal models of networked learning occurring on social media sites, in collaborative writing platforms like Wikipedia, and within game worlds

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[3] The five contest winners, along with over 50 other initiatives are listed on the Reclaim Open Learning website (open.media.mit.edu).

[4] An explanation of the philosophy behind the DOCC as well as videos and materials for the 2013 "Dialogues on Feminism and Technology" are posted at femtechnet.newschool.edu/docc2013/.

like *The Sims* as examples of effective problem-solving, collective intelligence, and peer-education. In doing so, they highlight the importance of informal teaching and learning at a distance. The present day problems and opportunities presented by both institutionalized and informal networked learning are not new to the twenty-first century nor are they necessarily specific to digital networks. Tracing a longer history that includes but also exceeds digital media networks, this chapter seeks to contextualize present-day experiments in networked learning such as MOOCs and DOCCs by exploring formal and informal modes of education in the print and electronic media networks of the 1960s and 70s. In doing so, the chapter asks how we might rethink education in general and critical literacy in particular as we continue to navigate networked media forms.

Although often associated with the advent of the personal computer, distance learning has a longer history going back at least as far as mail correspondence courses of the nineteenth century.[5] In the 1960s and 70s, there were a range of multimedia experiments with distance education for both formal and informal learning, including PLATO, a computer-based learning initiative,[6] educational television programming meant to be watched at home, as well as instructional television meant to replace or supplement course credit. Jennifer Sumner has argued that distance education has historically "served the system" rather than the students it is supposedly intended to serve, and companies in the 1960s and 70s often self-servingly advocated for the use of

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[5] See Jennifer Sumner's "Serving the System: A Critical History of Distance Education" (2000) for a concise history of distance education.

[6] For an in depth-explanation of PLATO, see Stanley G. Smith and Bruce Arne Sherwood's "Educational Uses of the PLATO Computer System" (1976).

technology for educational purposes because they stood to profit from doing so. More

recently, computer companies like Apple have spearheaded ongoing efforts to place

computing devices in classrooms and to study the effects on students and teachers

through initiatives begun in the 1980s like Apple Classrooms of Tomorrow (ACOT),[7] as

well as present day initiatives to have schools purchase iPads for every student.[8]

Similarly, in the 1960s, companies like Eastman Kodak that sold cameras and film

advocated for technological solutions like instructional television for educational

problems such as teacher shortages.[9] Other companies like Bell System, a cable company

that stood to profit from schools adapting expensive closed-circuit television systems

rather than simply using existing channels, sponsored a screenplay in the 1960s on the

benefits of educational television. The motives for sponsoring the screenplay are laid out

by writers Charles Palmer and Courtney Anderson transparently in their 1962 proposal,

where they explain that while the film "should seem to have no point of view" with

regards to open versus closed circuit television (4), "the plain facts of the situation,

simply imparted in their logical progression, lead of themselves to an ultimate conclusion

in favor of closed circuit—which the viewers will draw for themselves" (5). In this way,

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[7] See David Dwyer's "Apple Classrooms of Tomorrow: What We've Learned" (1994) for a discussion of Apple researcher's findings about the effectiveness of ACOT in enhancing classroom outcomes as well as standardized test scores after its first several years.

[8] For example, see Howard Blume's 2013 *Los Angeles Times* Article on iPads in Los Angeles Unified School District.

[9] A brochure called "Educational Technology Shapes the Future… Are You Ready?" containing an image of a teacher being filmed and broadcast on television published by the Eastman Kodak Company in 1968 exemplifies this trend.

experiments in educational television during this time were deeply entangled with corporate interests.

Meanwhile, in spite of claims about how educational television might solve teacher shortages, give students access to advanced courses on specialized topics, free teachers to spend more time interacting one on one with students, and help students to improve their study habits, these potential educational benefits of television in the classroom did not necessarily emerge. A questionnaire given to students who participated in a pilot educational television program from 1961-62 at a high school in South Carolina reflects a strong ambivalence about the value of educational television.[10] For example, in response to the prompt, "Taking everything under consideration I am happy/unhappy over the fact that I have been in this ETV course this year, the responses were nearly evenly split: 49.2% of respondents selected "happy" and 50.8% selected "unhappy." Likewise, in response to the prompt, "I have found ETV lessons to be: stimulating, monotonous, or about the same as regular classes," the responses are again ambivalent: 41% found them "stimulating," 46% found them "monotonous," and 13% found them "about the same as regular classes." In this way, in spite of some of the pseudo-scientific claims for the efficacy of educational television made by its proponents, the questionnaire offers a more ambiguous picture about how students experienced it.

Furthermore, distance education in the 1960s and 70s was not restricted to the confines of established educational institutions that developed educational television or computer-based courses. In fact, many for-profit companies and institutions offered low-

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[10] The "Educational Television Questionnaire for Participating Students" is archived in the William Gaddis Papers, Box 133 at Washington University in St. Louis, Missouri.

tech, mail correspondence courses focused on career training. Some of these courses advertised themselves specifically as being anti-academic and instrumental; for instance, a pamphlet for a private investigation course called Universal Detectives states, "our course is designed to be concise and to the point, not just words to confuse you. We do not teach theories, but just present you with factual information." The ad also emphasizes the material trappings of the course over and above its content, including the "fine white bond paper" that the lessons are printed on and the "handsome gold school lapel pin" and "gold sealed diploma" that students receive upon graduation. In a similar manner, a law school by mail called Blackstone School of Law offers a "gift" of "Cochran's New Pronouncing Law Lexicon" which is described as "probably the most unique and certainly the most useful law dictionary ever prepared for law students. This handy dictionary gives not only the pronunciation but also the meaning and definition of 6,000 words and phrases." Because the dictionary is touted first and foremost for providing pronunciations rather than definitions, the appearance of expertise—that is, the ability to pronounce words—is positioned over and above developing in depth expertise—as in, knowing how to *use* those words—a typical pattern in ads for commercial correspondence courses. The discourses surrounding low-tech, commercial correspondence courses like Universal Detectives or Blackstone School of Law in reality share much in common with above-mentioned discourses around the use of educational television and other forms of technologically-mediated instruction in public schools, as they are both firmly interconnected with the logic of markets.

All of this is to demonstrate that multi-modal forms of distance education existed in the 1960s and 70s well before the advent of the networked personal computing devices whose affordances shape discussions of MOOCs today, and that business interests were deeply entangled with the development and use of educational technologies deploying multi-modal forms of presentation or study. Because mail correspondence and mass media like television were used for learning at the same time that mainframe computers became integral to the operations of large public and private institutions, the 1960s and 70s was a key time where various kinds of print and electronic media intersected and overlapped, and where people were actively thinking about what it meant to learn within high speed, large-scale, technologically-mediated, post-fordist networks.

Yet rather than focus on the material artifacts and histories of distance education surveyed above, this chapter will focus on the kind of artifact that we might presumably hope distance education will teach us to read: William Gaddis's *J R* (1975), a satirical novel about an 11-year-old who, epitomizing the greed, selfishness, and individualism of Wall Street, builds a formidable business empire that ultimately comes crashing down. J R learns about the stock market formally in school and informally by accumulating and carefully reading bits of junk mail that no one else bothers to read. Through its depictions of formal and informal networks, technologies, and processes of learning, *J R* provides a literary artifact in which mid-century distance education allows the exploration of connections between networked learning, experiments in literary form, and post-fordist economics. Moreover, the novel is connected to all of the above-mentioned materials on distance education, which come from the William Gaddis Papers at Washington

University in St. Louis. Gaddis used the advertisements for Universal Detectives, Blackstone School of Law, and other correspondence courses as research for *J R*,[11] and the above-mentioned materials on educational television come from Gaddis's day job as corporate writer. During the twenty year period Gaddis spent writing *J R* between 1955 and 1975, he earned a living by researching and writing various speeches and marketing and promotional materials for companies such as Eastman Kodak, IBM and Pfizer. In 1963, he wrote a report on educational television for the Ford Foundation, and he used the South Carolina questionnaire and the Bell screenplay discussed above for research. He also wrote a pamphlet entitled "Educational Technology Shapes the Future… Are You Ready?" as a speechwriter for Kodak. Gaddis stored the unfinished Ford Foundation report on educational television in a folder with the label "ford fiasco," perhaps reflecting his mixed feelings: while the report is generally enthusiastic about educational television, the novel is highly critical of it.[12] Some of the most influential critics of *J R* such as Steven Moore and Tom LeClair have taken a strongly biographical approach to Gaddis's

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[11] These materials and other newspaper clippings and advertisements are interspersed with various drafts of the manuscript in St. Louis.

[12] For instance, Gaddis's *A Report on the National Program in the Use of Television in the Public Schools* (1963) opens with the following description: "There are about forty-five children in the top three grades of the school at Bimini, the westernmost of the Bahama Islands, and their lessons now include school television broadcasts from WTHS-TV in Miami, Florida, sixty miles away. One room opens onto another in the rambling old building, and the morning visitor can hear the gentle lilt of Bahamian English from a class of eight- and nine-year olds reading just off the large room where children up to sixteen sit absorbed in Dade County's fifth- and sixth-grade television lessons in science, Spanish, or Old World History." This image of Bahamian school children benefiting from a Florida educational TV broadcast offers a colonialist argument for the value of educational television. This kind of rhetoric, often paired with racist and classist assumptions about teachers and students, is present throughout the report. In contrast, *J R* satirizes American imperialism and presents educational television as ineffective at best, and as a symptom of a broader breakdown of educational institutions at worst. In this way, the Ford Foundation report and the novel offer nearly opposite perspectives on educational television.

work,[13] an especially tempting move to make in the present moment because of the breadth and depth of the Gaddis archive in St. Louis. However, in order to explore some of the novel's entanglements more broadly, this chapter considers *J R* within the historical and cultural context of media in transition in 1960s and 70s U.S. culture.

J R is a lengthy and wide-ranging postmodern novel written in a highly experimental style. Although some critics lament that, due to its difficulty, Gaddis's work has not received the attention that it deserves,[14] *J R* won the National Book Award in 1976 and it has long been studied as part of the postmodern literary tradition alongside the work of better-known authors such as Thomas Pynchon.[15] Comprised of mostly unattributed dialogue and lacking any chapter or section breaks over the course of 726 pages, *J R* reimagines the techniques of the epistolary novel for the complex, data-rich media networks of the late twentieth century. Sunka Simon's study, *Mail-Orders: The Fiction of Letters in Postmodern Culture* (2002), demonstrates that epistolary narratives are central to postmodern literary production, where representations of correspondence abound. While the epistolary novel has historically been associated with domesticity,

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[13] Steven Moore wrote the definitive Gaddis biography (originally published in 1989, to be reissued as an expanded edition in 2015), and he also recently published *The Letters of William Gaddis* (2013).

[14] See Steven Moore (2010) for a brief discussion of Gaddis as failure.

[15] Recent comparative studies of Gaddis and Pynchon include dissertations by Justin St Clair (2008), Jonathan Shaw (2007), and Birger Van Wesenbeek (2006), as well as Nicholas Spencer's chapter in his book *After Utopia* (2006). Moreover, Michael Schmidt's discussion of Gaddis in *The Novel: A Biography* (2014), refers to the postmodern novelists most frequently associated with Gaddis. Schmidt writes, "Don Delillo and especially Thomas Pynchon owe him much; William Gass, David Foster Wallace, and Jonathan Franzen also" (806).

femininity,[16] temporal expansiveness (letters take time to be written, delivered and read) and long-form correspondence, *J R* reinvents the genre as corporate/institutional,[17] masculine,[18] temporally compressed, and composed of generally brief, oft-interrupted bits of dialogue. As many critics have noted, the formal features of *J R*—its length, the unattributed dialogue, the sheer volume of characters—mirror the complex capitalist networks depicted in the novel. In his influential 1981 account of the novel, Tom LeClair argues that *J R* models "the art of excess" in order to engage the out-of-control excess of capitalism.

Building off of LeClair's seminal study of excess in *J R*, I read *J R* as a novel of "big data," a term now widely used to refer to large and complex constellations of information that cannot be easily mapped, processed, or made readable. I suggest here that by overloading the reader with information, or at least presenting the navigation of everyday life as an act of processing "big data," *J R* interrogates the ethics and possibilities of distance education as it explores the limits of critical literacy. Because critics of *J R* have generally emphasized its critique of capitalism, its formal innovation, and its connection to William Gaddis's biography, *J R*'s importance as a novel about how education and learning circulate within the networked cultures of the 1960s and 70s has been largely overlooked. Allistair Chetwynd's "William Gaddis' Education-Writing and

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[16] See Amanda Gilroy and W. M. Verhoeven's *Epistolary Histories: Letters, Fiction, Culture* (2000) for a discussion of gender in epistolary narrative.

[17] While there are some domestic spaces in the novel, much of the action takes place in the school or in various corporate offices. The central domestic space in the novel is the rented apartment with a faucet that never shuts off; however, the space quickly becomes the headquarters for J R corporation.

[18] The vast majority of speaking characters are men.

His Fiction: A Fuller Archival History" (2014) is an important exception as it details the connections between *J R* and Gaddis' corporate writing on educational television. In this chapter, I show that literacy, educational institutions, and experiments in learning are central in *J R* and that they are inextricable from the novel's more visible critiques of post-fordist capitalism. In a broader sense, I suggest that other postmodern novels that thematize networked communication, such as Pynchon's *The Crying of Lot 49* (1966), a novel where the protagonist discovers messages conveyed through a secret postal system, are also really about informal and unsanctioned modes of learning within technologically-mediated, information cultures whose conditions and imperatives may impinge on, or potentially expand, modalities of the literate and its socialities. In this way, educational, media, and literary networks converge in postmodern fiction like *J R* and *The Crying of Lot 49*.

In fact, at its core, *J R* depicts what we might consider to be a failed experiment in the public humanities, as students participate in "open classrooms" broadcast through local television and as J R learns how to play the stock market from "real world" correspondences with businessmen. The phrase "public humanities" is something of a buzzword in the present day, as scholars have begun to think about how to use new media technologies to make their specialized research and teaching accessible and of interest to a wider audience.[19] Twenty-first century efforts in the public humanities include scholars blogging on contemporary issues and live-tweeting conferences, multi-campus collaborative course initiatives such as the Whitman Project or the *House of Leaves*

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[19] See Alan Liu's "Where is Cultural Criticism in the Digital Humanities?" (2012) for an argument for the importance of public, humanistic scholarship.

website, and calls for more digestible, digital-friendly and open forms of scholarship by journals like *Kairos* or by those advocating recently for "buzzfeed scholarship." The widespread interest of humanists in data visualization is also closely linked with a turn towards accessibility and public scholarship. The public humanities are a response to our current intellectual climate where scientific knowledges are prioritized because they tend to produce measurable, legible outcomes that can be put to practical use. Reading *J R*, we are reminded that similar priorities existed and were being critiqued in the U.S. half a century ago. Alan Liu argues that the public humanities give us the opportunity to "rethink instrumentality," so that rather than assuming that instrumentalism is automatically a watering down of critical knowledge production, scholars might instead embrace the concept of instrumentalism "in a culturally broad, and not just narrowly purposive, ideal of service" (501). Liu thus proposes that we consider how we might embrace instrumentalism from a culturally situated and critical standpoint, and I argue here that not only does *J R* satirize "narrowly purposive" literacies, but that it also models a partial, yet suggestive form of non-instrumentality through its experimentation with form.

In this way, this chapter argues that *J R* reveals the pressing need for non-instrumental literacies as we navigate distance education initiatives specifically as well as networked media within complex information systems more broadly. The chapter begins by studying J R's profit-driven reading practices, as he works his way up from trading penny stocks from a payphone at his school and at the local candy store to running a diversified "family of companies." I demonstrate how J R's ethically bankrupt yet

financially rewarding literacy epitomizes the potential dangers of distance learning.

Nevertheless, the content of the experimental postmodern novel prompts us to consider

how we might access forms of literacy that offer us sustenance, opportunities for ethical

engagement with others, and historically-situated learning experiences through

fragmented correspondences within instrumental, capitalist networks. The chapter

explores how the formal features of the novel offer new literary possibilities as an

alternative to the literacy epitomized by J R. I also turn to other experimental models of

correspondence from the 1960s and 70s, including mail art and Eliza, which exemplify

some of the key characteristics of non-instrumental correspondence literacies. These

formal innovations and the affective resonance they create demonstrate the value of what

Alan Liu calls "nice work" and Craig Saper calls "intimate bureaucracies," where

individuals find imaginative ways to infuse information culture with historically and

culturally situated knowledge from within. Thus, while J R enthusiastically absorbs the

literalism, self-interest, and individualism presented by the reading materials before him,

the novel itself critically re-frames industrial-capitalist discourses as literary discourses

through its experiments with form. To conclude, I move back to the present day to

explore the implications of non-instrumental correspondence literacy for shifting debates

on MOOCs and other forms of experimental and institutional distance education.

Although *J R* ultimately depicts a failed experiment in what we may now call an earlier

phase in the mediatization of the public humanities, it also enables us to question how

and where we might find space for a more inclusive, ethical, and valuable mode of—that

is, a reparative modality for or operating within—distance learning's histories and

futures, or whether such a thing is even possible. In this way, the novel models what I describe as "passing failing," where education yields risk and uncertainty even as it affords the opportunity for play and imaginative practices of reading and writing.

J R's Education: The Capitalist Pedagogy of Junk Mail

The school depicted in *J R* is a dismal place. A pervasive anti-intellectualism infiltrates the classrooms, where students are prepared for mind-numbing standardized testing through lessons broadcast on television, and the school administrators direct all of their energies towards securing corporate funding for superfluous facilities upgrades such as new blacktopping for the parking lot. The ties between the school and corporate capitalism are so pronounced that the principal, Mr. Whiteback, tellingly doubles as the president of a bank, and Whiteback's boss, the school superintendent, insists that the sole function of the school is to "keep these kids off the streets until the girls are big enough to get pregnant and the boys are old enough to go out and hold up a gas station, it's strictly custodial" (226). The students are generally ignored, neglected, and occasionally lost on field trips. The anti-intellectualism of the school is blatant; for instance, the Great Books program is unceremoniously displaced by a bunch of stoves, washing machines, and dryers donated by a corporation looking for a tax write-off for unsold merchandise. The school names this donation the "home ec motivational center," and the principal proclaims that these appliances will "potentiate the girls to make marriage a more meaningful experience" (223). By replacing books with domestic devices aimed at preparing female students to become housewives, the school functions as a training

ground for gendered techno-consumerism rather than for critical thinking or informed citizenship. The technically inflected jargon used by the school administrators, including words like "potentiate," exemplifies how optimistic, pseudo-scientific rhetoric is used to make up for a lack of substantive curricular objectives. Furthermore, much of the curriculum is bizarre and incomprehensible, including Coach Vogel's attempts to teach sex ed without the "offensive human element" (174) by relying entirely on mechanical metaphors. His lesson plan reads, "Micro Farad yes that's, farad's an electrical unit, his resistance at a minimum and his field fully excited, laid Millie Amp on the ground potential, raised her frequency and lowered her capacitance, pulled out his high voltage probe and inserted it into her socket connecting them in parallel, and short circuit her shunt…" (329). In this way, a description of sexual intercourse becomes dehumanizing nonsense, a parody of a learning experience rather than the real thing.

Moreover, because most of the lessons are broadcast on television, educational television functions as a key symptom of the corporate school in the novel. The lessons tend to be highly scripted and standardized, which reflects the desire of the school to control the message it broadcasts to students. Critics like Stuart Hall and Wendy Chun have observed that fantasies of media control are typically just that: fantasies. In his 1973 essay "Encoding and Decoding in the Television Discourse," Stuart Hall suggests that media producers cannot control how their messages are received because while some viewers may have dominant-hegemonic readings, where they accept the premises presented to them by the program, other viewers will respond with negotiated or oppositional readings that turn a critical lens on any given program. More recently,

Wendy Chun points out that technological systems of control are always incomplete, full of glitches, and unable to live up to the oft-utopian or dystopian rhetoric surrounding them. In this way, in spite of the fantasies of the administrators and corporate stakeholders at J R's school that the students can be spoon-fed a particular set of beliefs via television, in reality, educational TV potentially serves as a space for disruption, both because of how students and community members receive it and because of what actually goes on in the programming. For instance, a key moment of televised disruption occurs when Edward Bast, a young and newly hired music teacher at J R's school, departs from a scripted lesson about Mozart on camera. At first Bast reads from the teacher's guide, where Mozart's life story is described as if it were known only through a Hollywood biopic trailer featuring spectacular special effects: "a real life fairytale that takes us from the glittering courts of Europe to a scene in a great thunderstorm" (40). Several teachers, administrators and corporate stakeholders happen to be distractedly watching, and, partway through, much to the horror of principal Whiteback, Bast departs from the scripted remarks and begins to improvise, offering a lengthy and fragmented counter-narrative about Mozart's poverty and desperation. In reference to Mozart's death he explains, "—spent about four dollars for his funeral but that, that might spoil our nice fairytale boys and girls his few friends following the cheap coffin in the rain and turning back before it ever reached the pauper's grave nobody could ever find again is, do you know what a pauper is boys and girls?" As Bast's lesson continues, the administrators desperately try to turn off the television because someone from the foundation funding the school's foray into educational television is in attendance. This scene of disruption

within the supposedly orderly and controllable system of broadcast TV encapsulates several of the problematics emerging in the novel around institutional forms of distance education. Although educational television allows for more surveillance and standardization, it also can allow for strange, unexpected and surprising disruptions on a larger scale. By the end of the novel, the foundation subsidizing educational TV at the school decides to abandon the venture, a narrative turn that resonates with the historical fact of Gaddis's own unfinished Ford Foundation report on educational television.

Open circuit educational television depicted in *J R* changes the nature of the classroom space as it allows the public to view lessons from a distance and to engage with the school in new ways.[20] For example, at one point a friend of J R's uses the school A/V equipment to play a pornographic video on school equipment that accidentally gets broadcast out to all viewers in the community. The student claims that he thought the video was about karate, and the administrators fear that there will be an angry backlash from the public. Instead, many elderly viewers mistake the pornography for a sex-ed class, and they call in to express happiness about the "refreshing candor" of the curriculum (458). Principal Whiteback, who is much more concerned with avoiding controversy than he is with student learning, is relieved that the public is not upset and does not pursue the matter further. In this instance, the public literally cannot tell the difference between a planned lesson for middle school students and a pornographic

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[20] The novel plays out some of the debates between open and closed circuit systems that appear in the above-mentioned Bell Systems screenplay. On the side of closed circuit, Major Hyde, a die-hard conservative whose car has a bumper sticker that reads "keep God in America," firmly advocates for the value of closed circuit cable over open circuit broadcasting for instructional television. Although Hyde presents this as a cost-effective measure that would benefit the school, he works for Diamond cable, which potentially stands to gain from the school purchasing closed circuit cable TV.

video. This incident suggests that there is little inherent value in opening up the classroom to the public, which can, in reality, diminish teaching and learning objectives as schools are under pressure to appeal to the lowest common denominator of corporate interests, as opposed to the highest aspirations of student potential, in order to avoid controversy.

The narrative's context of closed-circuit, privatized, and technologically mediated "public" learning brings us to the student at the core of the novel: eleven-year old J R. Unable to access any kind of educational value in an environment as anathema to learning as this one, J R turns to informal texts, networks and learning spaces beyond his own educational institution. In order to occupy themselves, J R and his friend get into the habit of sending away for various brochures and free giveaways through the mail, items typically thrown away as "junk mail," for which they fiercely negotiate and trade with one another. One day, J R's class receives a practical if perfunctory lesson on the stock market; in a school that seems to emphasize applied courses such as home-ec, sex-ed, and driver's ed, it is hardly a surprise that even core classes would focus on hands-on, so-called practical learning. The class pools money together to purchase one share in Diamond Cable, and they soon visit the headquarters of Diamond Cable on a class field trip. Diamond's public relations representative, Davidoff, explains to the students the rights that they are entitled to as owners of one share in the company:

> -- [Davidoff] that's what people's capitalism is, isn't it everybody. As one of the company's owners you elect your directors in a democratic vote, and they hire men to run the company for you the best way possible. When you vote next spring…
> -- [J R] With one share we get like one vote?
> --[Davidoff] You certainly do, and what's more you're entitled to…

-- [J R] And like if I owned two hundred ninety-three thousand shares then I'd get like two hundred ninety-three thousand votes?
-- [Unknown student] That's not fair! Like we get this one lousy vote and he gets like two hun…
-- [J R] What's so not fair! You buy this here one share so you've got like this lousy twenty-two fifty working for you where I've got like six thou, wait a second…the pencil stub came up to scratch,--nought times nought is…
-- [Unknown student] He couldn't could he?
-- [J R] I could so boy I could even vote two hundred ninety-three thousand times for myself for a director if I wanted to couldn't I?
-- [Unknown student] I mean like that's democracy? It sounds like a bunch of…
(92-93)[21]

Davidoff thus uses the terms "people's capitalism" and "democratic" to describe the fact that capitalism is in some ways participatory; at the same time, this misuse of the term democratic implies an egalitarianism that the students themselves contest as they grapple to understand how the stock market works. They debate whether or not it is "fair" that buying more shares allows a stock holder more votes than another stock holder. J R contributes to this discussion by firmly asserting the fairness of the current system and by proclaiming, "I could even vote two hundred ninety-three thousand times for myself for a director if I wanted to couldn't I?" J R already aligns himself with those with class privilege and power, inadvertently revealing that "people's capitalism" is mere myth. In response, the unnamed student begins to complain that democracy "sounds like a bunch of…" but cannot quite finish the thought or clearly articulate the problem with J R's worldview, as he has not been taught or able to learn the words for his thoughts.

In this way, while some of the other students question the world they are being exposed to, J R wholeheartedly embraces the status quo. During the field trip, he encounters various corporate executives who casually dispense hackneyed advice like "as

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[21] I have inserted the names of speakers in brackets here for clarity.

long as you're in the game you may as well play to win" (107) and "the trick's to get other people's money to work for you" (109). J R takes this advice very seriously, and he asks shrewd questions regarding the fine print of stock ownership. Later on in the novel, J R even threatens a lawsuit against Diamond Cable that gets settled, providing J R with enough start up capital to get into the penny stock trading. Within the context of information cultures, where the amount of "big data" makes it impossible for any one individual to have a comprehensive overview of economic networks, J R realizes that the child's game of collecting and trading mail that he has been involved in can scale up to become an adult's game of buying and selling stocks. In this way, J R is simply taking the "hands-on" lessons about Wall Street taught in his school seriously, which points to the dangers of early career-focused and "practical" forms of education not only for J R himself, but also ironically for Diamond Cable, as their holdings are threatened by the supposedly idealistic youth culture that they seek to manipulate and monetize.

In spite of all of his eventual successful wheeling and dealing, J R is extremely literal and ignorant about the world, which is not surprising because J R's growing acquisitions put him in contact with such a vast array of people, places, and kinds of work that it would be unlikely for anyone, let alone a barely literate eleven-year old, to have a deep knowledge of all of these things. Yet J R's lack of knowledge rarely seems to hinder him in the business world; in fact, it often contributes to his success. He constantly mixes up words; for instance, when he learns that his music teacher Mr. Bast attended school at a "conservatory," J R assumes that Bast was learning to be a forest ranger (124). He confuses "erotic" for "erratic" (647) and he deals with lobbyists while assuming that

"lobby" refers to the entrance to a hotel (662). Moreover, even as he runs a multinational corporation, J R's knowledge of geography is shockingly narrow. Upon being billed for an expensive trip to Jamaica by his attorney, J R, suspecting he is being ripped off, exclaims, "Plane what do you mean plane you can go there on the subway and like who's going to stay at a hotel in a dump like Jam…it's a what? What do you mean it's an island it's this dump where you change trains at going into New…" (467). For all of J R's demonstrated business savvy, he can't conceive that Jamaica is an entirely different country, not a place a few stops away on the train in New York. At the same time, Jamaica station would presumably have been at that time a transfer point to John F. Kennedy International Airport, where one might catch a plane to Jamaica; thus, in a world reduced to transit networks, J R collapses different kinds of traffic into indistinguishable data points. Even though J R's confusion is humorous, it also calls to mind the fact that within big data networks, none of us can know everything and what may look like ignorance is in fact just J R learning to process as much as he can within information-rich networks. J R thus exemplifies the subsequent conflation between inner life, outer goals, and data traffic that can result from information overload.

Moreover, in the only handwritten page in the novel, a copy of J R's research report on Alaska, spelled "Alsaka," appears. This paragraph-length report contains several minor usage errors, including phrases such as "there is also much timber and wild life at Alsaka" (438). J R's way of reading and writing is deeply informed by masculinist, capitalistic epistemologies and this becomes particularly visible in what he includes and what he leaves out in his report on Alaska. Rather than describing the history, culture, or

landscape, J R's report narrowly focuses on the finances of economic development in Alaska. Moreover, J R wholeheartedly embraces the fatalistic rhetoric often put forth by oil corporations when he writes that Alaska's oil has been "waiting there millions of years locked in the earth for the hand of man to release it in the cause of human betterment" (438). Here oil drilling is cheerfully depicted as being inevitable, as the oil has been "waiting" to be extracted. Furthermore, J R's grandiose yet vague promises of "human betterment" through extraction of natural resources resonate closely with affective appeals to consumers in late twentieth and early twenty-first century advertising. The report briefly refers to "Eskimos which have no written language," a colonialist description that dismisses the value of native cultures in Alaska. J R thus clumsily juxtaposes the triumphant industrial narrative of "human betterment" with a narrative of illiteracy and implicit cultural poverty that marginalizes the land claims of native people. At the same time, the stilted nature of J R's own writing ironically draws attention to J R's limited literacy. In this report, J R treats the topic of Alaska with the same kind of self-serving literalism with which he approaches running his business empire.

J R's focus on quantifiable data, and particularly on sums of money, reflects an investment in so-called objective measures of value. In "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective" (1988), Donna Haraway argues that the idea of "objectivity" stems directly from capitalist and patriarchal assumptions about the world that become universalized, and that knowledge should be thought of as embodied and partial, rather than neutral and universal. Haraway

writes, "this essay is an argument for situated and embodied knowledges and an argument against various forms of unlocatable, and so irresponsible, knowledge claims. Irresponsible means unable to be called into account" (583). However, because Wall Street functions off of knowledge becoming portable and universal, the situated knowledges valued as ethical and feminist by Haraway are the exact knowledges least relevant to the kind of "irresponsible" speculative capitalism that interests J R. Moreover, Haraway emphasizes what J R fails to see—that so-called objective knowledges cause material damage to subjugated people. She insists, "These are claims on people's lives. I am arguing for a view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity" (590). While J R's report on Alaska reflects the latter tendency of the "view from above, from nowhere, from simplicity," its placement in the novel as a sloppily handwritten artifact of a careless elementary school student suggests the extent to which its rhetoric should be valued.

In spite of his ignorance, an ignorance entirely forgivable for an eleven-year old and entirely unforgivable for a CEO who holds enormous power, J R firmly believes in the value of education, albeit he imagines education in the most literal, instrumental terms possible. J R's self-education is a bricolage based on mail correspondence. He learns the ins and outs of trading stocks by sending away for books and pamphlets like "Understanding Financial Statements," which he reverently refers to as "literture [sic]." For J R, markers of literary value are meaningless. Instead, he uses the term "literture" to refer to any writing. This in some ways points to a total flattening out and

democratization of what writing can be as it potentially overturns historical and socially

constructed notions of literary value as identified by critics like Terry Eagleton, Pierre

Bourdieu, and Jacques Derrida. On the other hand, it is also part of the big data problem

where every kind of discourse is suddenly just as valuable as any other kind, or where

evaluation of worth is purely based on monetary value.[22]

In addition to educating himself through pamphlets and books, J R tries to prepare

Bast, his former music teacher and unwilling business partner, for the demands of

running his growing business empire. Concerned that Bast isn't getting through all of the

correspondence that floods the rundown rented apartment where J R corporation is based,

J R orders Bast a rapid reading course that promises to teach students how to read at the

incredible pace of "between fifteen hundred and three thousand words per minute"

(387).[23] J R imagines literacy here in the most literal way possible, in terms of counting

how many words a person can read per minute, so that literacy has nothing to do with

critical literacy. In addition, he orders a set of pre-written business letters—advertised as

"letters you might have to struggle over for just the right phrase completely written for

you" (386)—for Bast. These letters reflect the interchangeability of the kinds of

transactions that J R is involved in and the feeling that writing can be mechanized,

standardized, and made portable. In addition to the rapid reading course and the business

letters, J R orders Bast a degree from Alabama College of Business in the mail (379), a

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[22] This resonates with the present-day functionality of "likes" as a way of sorting data in our contemporary information-rich social media networks.

[23] Interspersed with the manuscript is an advertisement cut out from a newspaper for "The internationally famous Evelyn Wood Reading Dynamics Institute" that promises to teach students to read "between 1,500 and 3,00 words per minute." The wording in *J R* and in the ad are identical.

degree that can literally be bought. In this way, for J R, an education, or at least the semblance of one, is something that can be purchased and pieced together out of pre-fabricated materials. J R's understanding of education exemplifies the promise of capitalist educational writing systems reflected in the advertisements for Universal Detectives and Blackstone School of Law that fetishize the semblance of an education over the process of learning. While others might read such advertisements with skepticism or critical distance, J R accepts their premises wholly.

In spite of his lack of interest in reading, J R's business ventures lead him into the book publishing industry, where his corporation produces encyclopedias and textbooks. The novel plays with the question: how can someone who knows so little of the world be responsible for producing educational materials for others? The children's encyclopedia that his company produces, according to one character, "is doing extremely well even though it seems to be teeming with inaccuracies and a number of prominent educators have demanded its withdraw…" (693). The paradox that the encyclopedia can be "doing extremely well" financially even as it is "teeming with inaccuracies" and therefore not serving its primary purpose of providing accurate information reflects a generalized lack of interest in accurate knowledge transmission.[24] Moreover, the textbooks that J R's company produces contain advertisements geared at children, and the public relations representative working for J R explains how the ads will be targeted based on grade level: "gum cereals candy bars all that stuff and junk is the primary grades bikes sports

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[24] An encyclopedia full of inaccuracies and edited by non-experts calls to mind current debates on Wikipedia, although the major differences worth noting are that Wikipedia is run by a non-profit organization that has an extensive, albeit imperfect, peer review process. For a useful, critical introduction to Wikipedia, see José van Dijck's *The Culture of Connectivity* (2013).

equipment records seventh and eighth on up nothing till French three and advanced algebra on deodorants tampons all that" (518). The idea to use textbooks to cross-promote the various products sold by subsidiaries of J R Corporation—to privatize the school and make it profitable—is the very kind of idea that the administrators of J R's school might have. In this way, J R's attitude is not anomalous; instead, it closely mimics the attitudes and values of the administrators of his own school. In addition to his educational publishing efforts, J R is approached about writing an autobiography called "How to Earn a Million" (651). J R thus enacts both the nightmare and fantasy of networked correspondence, where anyone can write anything, even if they are just learning to read; in this way, the mediated Babel where everyone is speaking and no one seems to be listening to anyone else functions as problematic, as the technics of writing are woefully misunderstood by J R and others in the novel. As J R oversees the production and sale of textbooks, the novel calls into question the value of the overthrow of hierarchical models of education and communication by suggesting that this democratization leaves us with nothing more than encyclopedias "teeming with inaccuracies" and textbooks advertising "deodorants tampons all that." *J R* thus shows us that simply making the media accessible to everyone does not create a situation where everyone has access to meaningful literacies; in fact, it may contribute to the dumbing down of public discourse. J R's calculated forays into publishing reflect the fact that broadening access to industrial means of production can tend to simply reproduce the status quo rather than transforming knowledge production for the better. In this way,

literally knowing how to read, write, and publish without developing critical literacy is not enough to make media more inclusive, ethical, or culturally-relevant.

This lack of critical literacy and generalized stupidity becomes even more evident when J R finds himself in conflict with a Native American community that owns land that J R wants to purchase for mineral extraction. Because J R does not understand history, he claims to be "helping" the native people in a deal where, unknowingly restaging the "beads for Manhattan" myth, he gets the mineral rights on native land in exchange for a bunch of hairdryers, a useless gift particularly because, living in poverty, they don't have electricity. In addition, J R's company organizes a "historical pageant" without the input of any Native Americans, who, according to J R's public relations person, upon being asked about their history, "yakked about the Great Spirit warning them the white man would try to take away their language" (521). J R is dismissive of these kinds of local knowledges and oral histories—they are simply examples of nonsense "yakk[ing]"—that aren't easily quantifiable and computable; in fact, they may as well not exist. The story of white men steamrolling native culture is written off as nonsensical white noise, and a scriptwriter composes a made-up history that includes "a little famine rapes cholera to jazz up the scenario" (521). The apparently fictive elements like "famine," "rapes," and "cholera" used to "jazz up" the performance are ironically not fictional. The scriptwriters know so little about this underrepresented history that they unwittingly represent it out of a desire for pathos rather than for truth telling.

In response, the Native Americans throw out the visitors, their offensive gifts, and their accidentally true history. J R is completely puzzled by this turn of events, and he

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rationalizes, "just because they get mad about these here forefathers marching around in the snow in these here bygone times so they go wreck up this whole tremendous gift which we're trying to help them out like what did we ever do to them!" (638). For J R, any injustices against Native Americans are squarely in the past, or "bygone times" as he calls them, and have no bearing on the present. He wonders, "what did we ever do them!" and, in doing so, adopts a very postmodern approach, in the pessimistic sense identified by Fredric Jameson, where representation is often superficial and ahistorical as, according to Jameson, "we seem increasingly incapable of fashioning representations of our own current experiences" (21). Nevertheless, J R's understanding of Native American history does not only or primarily represent the ahistorical break with modernity that Jameson identifies where "the alienation of the subject is displaced by the latter's fragmentation" (14); rather, this view of Native Americans vis-à-vis narratives of U.S. nationalism represent a repetition of U.S. history, particularly in J R's rhetoric which depicts his own profit making as generosity—"we're trying to help them out." Here, J R finds himself surprised by the counter-history proposed by the Native Americans that calls into question his ideas about "progress" and "human betterment." The racism emerging here and in J R's account of Alaska is part of a larger pattern of racist discourse circulating in the novel.[25] For instance, after J R's class visits Diamond Cable Company, Davidoff, the PR representative, takes a number of photos of the visit for the company's annual report that he decides to alter so that some of the white students appear to be black

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[25] The importance of race in *J R* has largely been overlooked by its critics. Recently some critics like Nicholas Brown (2008) and Joseph Tabbi and Rone Shavers (2007) have begun to write about Gaddis's work in a global context; however, the role of race in *J R* in the context of American racism and the civil rights movements of the mid-century merit further study.

in order to convey a so-called "inner city concept" (255). In this way, Davidoff seeks to enhance the reputation of Diamond Cable by representing their apparent outreach to black children even as no one at the company has any interest in actually doing so. Although J R is eleven and his ignorance might be forgivable because of his age, much of what he does and says reflects the norms and assumptions of the dominant culture. Through J R's articulation of a white-washed, revisionist history, the novel calls into question whether oppressive ways of reading, thinking, and knowing emerging from the dominant culture are not all in some way childish or juvenile.

This childishness is evident in the way that speculative finance is treated like a game by those, mostly white men, who control the stakes, even as it can have very real material effects on the living conditions of others, particularly on minority and historically marginalized communities who are generally excluded from participation. Even at the end of the novel, when J R's business empire has fallen apart leaving a wake of destruction, he seems to have learned nothing other than how to better prepare for his next business scheme. In spite of this outcome, there are several characters throughout the novel, including Edward Bast, who contest J R's worldview and seek to propose alternative paradigms and epistemologies that counter J R's faith in individualism, capitalism, and techno-science. At the end of the novel, mild-mannered Bast tries to expose J R to ideas beyond the instrumentalism he readily adapts from Wall Street. Bast urges J R to "take your mind off these nickel deductions these net tangible assets for a minute and listen to a piece of great music, it's a cantata by Bach cantata number twenty-one by Johann Sebastian Bach damn it J R can't you understand what I'm trying to, to

show you there's such a thing as as, as intangible assets?" (655). Bast stumbles as he tries to convince J R of the value of vaguely termed "intangible assets." Whereas the rhetoric around economics is understood to be concrete, quantifiable and objective by J R, even as throughout the novel we see that it is confounding, vague and highly ideological, the rhetoric around music, and other forms of humanistic creative expression and knowledge production, lacks a clear language or set of tropes for conveying its value. In this way, this interaction between J R and Bast stands in for a central problem presented in the novel: techno-capitalism is able to persuasively articulate its value whereas art and humanistic thought cannot, thereby making themselves "intangible" and ultimately dispensable within the powerful economic networks portrayed within the novel. But can we blame J R, who is both evil and innocent, for this mail order capitalist pedagogy that teaches him certain values at the expense of others? J R is a product of the post-fordist networks that he inhabits, and he is responding to positive feedback that he receives for his actions within this system. As discussed in chapter 1, the work of contemporary scholars often views networked literacy and collective intelligence as catalysts for social good. Here, they lead to the dumbing down of culture and to a kind of unapologetically instrumental literacy that is fundamentally disconnected from critical, historically-situated modes of reading and writing.

J R, Formal Experiments, and Literary Value

Although Bast's rhetoric is not sufficient to sway J R away from his instrumental thinking, the experimental form of the novel potentially offers a different kind of

challenge to the hegemonic national and economic narratives accepted by J R and his

business associates. Critics continue to debate whether the novel simply uncritically

propagates the discourses of Wall Street, or whether it manages to critically transform

them through its experiments with form. Tom LeClair argues that *J R* "imitate[s] in its

form and style the runaway system it is about" (597). From LeClair's perspective, not

only does Gaddis "relentlessly insist[]" upon making the reader experience the excess of

capitalism, but, according to LeClair, Gaddis also believes that "the conditions of

American life demand an art that risks *forcing itself* upon the reader" (600, my emphasis).

In this way, LeClair's reading of the reader-position ends up claiming that the novel

performs a very parallel work to capitalism as each seek to subsume the subject and *force*

the subject into an out of control system. For novelist and critic Jonathan Franzen, this is

exactly the problem with *J R*. Franzen describes his frustration while reading *J R*; he

laments, "Battling through *J R*, I'd wanted to grab Gaddis by the lapels and shout: 'Hello!

I'm the reader you want! I'm *looking* for a good systems novel. If you can't even show

me a good time, who else do you think is going to read you?'" (248). In spite of his

admiration for Gaddis' first novel, *The Recognitions* (1955), Franzen abandons *J R*

halfway through. He explains:

> *J R* suffers from the madness it attempts to resist. The first ten pages and the last
> ten pages and every ten pages in between bring the "news" that American life is
> shallow, fraudulent, venal, and hostile to artists. But there never has been and will
> never be one single reader who is unpersuaded of this "news" on page ten but
> persuaded on page 726. The novel becomes as chilly, mechanistic, and exhausting
> as the System it describes. Its world is ruled by corporate white men who pursue
> their work with pleasureless zeal, casually sideline women and minorities, and
> invent difficult insider language to discourage newcomers: how oddly like the
> book itself! (262)

Jonathan Franzen thus dismisses *J R* as simply repeating the discourse of capitalism. In this way, he suggests that *J R* performs what Eve Kosofsky Sedgwick would call a "paranoid reading," that simply focuses on exposing the workings of power but never offers any kind of meaningful alternatives. However, Franzen's account of *J R* fails to acknowledge that repetition can become a critical act. Homi Bhabha has famously argued that mimicry is subversive as it "must continually produce its slippage, its excess, its difference" (122). In this way, Bhabha's work suggests that narratives like *J R* that appear to simply reproduce hegemonic discourses may in fact be reproducing them with a critical edge. In this vein, Nicholas Spencer has argued for the importance of "critical mimesis" in the novel, and, unlike Franzen, he suggests that *J R* resists becoming a corporate novel by deploying corporate rhetoric in a literary context as a form of critique. A range of contemporary critics, including Alan Liu, Craig Saper, Rita Raley, and Alexander Galloway, have likewise argued that literary and art forms must critically engage with economic and instrumental discourses, and that doing so offers grounds for imagining counter-narratives rather than reinforcing the status quo.

In the case of *J R*, the experimental form of the novel complicates the instrumental discourses circulating within it and creates space within big data networks for what Eve Sedgwick calls "reparative reading." The idea of the "experiment" is particularly important, since this chapter seeks to understand the relationship between educational experiments in distance education and imaginative, artistic, or literary experiments. The most clear way that *J R* is experimental is that the novel is written almost entirely in dialogue, although, as Marc Chénetier points out, the novel also

contains brief narrative descriptions throughout that help to loosely structure the story.

The encyclopedic size and scope of the novel is another way that it is experimental;[26]

although while readers may experience the novel as overwhelming, a chaotic

embodiment of big data, the manuscript was meticulously planned and structured by

Gaddis.[27] As a supplement intended to allay the difficulty of reading the novel,[28] The

Gaddis Annotations, a collaborative website run by Victoria Harding with input from

influential Gaddis scholars like Steven Moore, is devoted to offering context and notes on

all of Gaddis's fiction. The site divides the chapter-less *J R* into 83 scenes and lists the

names of 121 characters, reflecting the encyclopedic scale of the novel. The function of

the Gaddis Annotations is to supplement and clarify the massive novel, but, in a

Borgesian irony, the annotations themselves, which explain *J R*'s many allusions to

literature, music, politics, religion and history, are so extensive and erudite that they

almost need their own explanations. So for instance, the name "Kreisler" appearing in

scene 11 is defined as "Fritz Kreisler (1875-1962), Austrian-born American violinist" and

the phrase "genius does what it must talent does what it can" appearing in scene 16 is

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[26] Stephen J. Burn argues that although Gaddis's novels do not fit Edward Mendelsohn's precise definition of the "encyclopedia novel," a definition that includes only Pynchon's *Gravity's Rainbow*, Dante's *Divine Comedy*, Cervantes' *Don Quijote*, Rabelais's *Gargantua and Pantagruel*, Goethe's *Faust*, Melville's *Moby-Dick*, and *Joyce's Ulysses*, they deserve to be due to their scope and to their engagement with historical and contemporary discourses around encyclopedias.

[27] The drafts of *J R* in the archive in St. Louis reveal a writing process where pieces of text were cut up and rearranged in various drafts.

[28] In the introduction to the 2012 Dalkey edition of the novel, Rick Moody, in an apparent effort to counter the dominant impression of *J R*, insists that "*the book is entertaining and not difficult at all*" (his emphasis, VIII). Although he appreciates Moody's efforts to get people to read the book, Lee Konstantinou convincingly responds that the novel is undoubtedly difficult. He writes, "No, it's not impossible to read, but it requires an investment of time and attention to unlock its many pleasures," an investment much more intense and long-lasting than is required by most contemporary novels.

glossed as "from Bulwer-Lytton's poem Last Words of a Sensitive Second-Rate Poet." These examples reflect the fact that the novel contains countless obscure, high culture references, and the Gaddis Annotations provides a valuable resource for readers curious about specific cultural allusions within the novel.

On the other hand, these annotations are perhaps just as difficult and dense to read as the novel itself—in this way, the large-scale novel both potentially lends itself to data analysis but also makes any such analysis quite difficult. From another perspective, a resource like this is not needed to appreciate the novel because perhaps the references that the reader fails to grasp—and all readers will inevitably miss some—put the reader in a position of not knowing, much like the young J R. As the reader finds herself in a parallel position to J R, she must consider how to function in a system where one is inundated with data that cannot be fully interpreted by any single reader. Although J R is repugnant in many ways, the overloaded reader of this big data novel can thus put herself in his shoes, perhaps even more so when trying to access resources like the Gaddis Annotations that only create a situation with more information overload. As an alternative multimodal form of annotation, the Gaddis Annotations also contains passages from the novel paired with musical clips relevant to each passage. This perhaps is suggestive of a more effective reading strategy for approaching *J R*, one that prioritizes flow and mood over esoteric details.

In addition to its size, the novel feels chaotic because the dialogue is unattributed, so the reader has to pay close attention in order to follow what is going on at any given time. At the same time, there are frequently multiple simultaneous conversations going

on with multiple participants involved, and it is extremely rare for any character to ever utter a complete sentence as most bits of dialogue begin in the middle or get cut off partway through. In this way, the rhythm of dialogue in the novel sounds more like everyday, conversational speech than we might typically find in fiction. As a result, the dialogue is fragmented and it can be difficult to follow as the novel depicts the conventions of oral communication rather than print-based, literate conventions of communication. The conventions of oral conversation being depicted in print— particularly the interruptions and the strange juxtapositions—make *J R* a tragi-comedy,[29] where the various characters seem utterly unable to understand one another or to communicate meaningfully. But even amidst the frustration of miscommunication, the outlandishness and creativity of the misunderstandings make the reader laugh, and create space for unexpected moments of pleasure. Considering the complex formal features of *J R* in conjunction with the instrumental discourses circulating within it, the novel points to the need for critical literacies of correspondence so that we can understand how writing moves back and forth within a network beyond the instrumentalism so dominant in J R's own discourse and in the discourse of junk mail from the 1960s and 70s. Not only does eleven year-old J R point to the need for critical reading and writing strategies because of his lack of such strategies, but *J R*, the novel, points to the need for critical literacies through its experimental form that is nearly impossible to read without such strategies.

  J R is part of a larger set of experiments in correspondence from the 1960s and 70s that struggle to imagine critical literacies beyond instrumentalism and that foster

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[29] Gaddis had plans that never worked out to turn *J R* into a film, and he titled his proposal "J R: a Comic Film."

affective bonds between correspondents in networks dominated by techno-science and instrumentalism. Here, I turn to Eliza, a computer program developed by Joseph Weizenbaum in 1966 that was designed to respond to users, according to Weizenbaum, "roughly as would certain psychotherapists" (1966).[30] However, Eliza was not intended to actually serve as a therapist; instead, the program was built to demonstrate new developments in computer science related to natural language processing. Weizenbaum chose therapy as a model because he explains that it is an unusual mode of conversation where "one of the participating pair is free to assume the pose of knowing almost nothing of the real world" (1966). He notes,

> If, for example, one were to tell a psychiatrist "I went for a long boat ride" and he responded "Tell me about boats", one would not assume that he knew nothing about boats, but that he had some purpose in so directing the subsequent conversation. It is important to note that this assumption is one made by the speaker. Whether it is realistic or not is an altogether separate question. In any case, it has a crucial psychological utility in that it serves the speaker to maintain his sense of being heard and understood (42).

In this way, the idea of the computer therapist was not meant to be taken literally but rather to help create a program that gives the impression of understanding the user without actually needing to do so, in much the same way that J R can have conversations abut Jamaica or lobbyists without actually knowing what they are.

Thus, Sherry Turkle describes Eliza as a "dumb" program in the sense that it cannot understand or "know" what the user means (105, 1997). Instead, Eliza identifies keywords from users and plugs substitutions into preformed scripts. Here is the famous

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[30] In fact, Weizenbaum created multiple iterations of the Eliza script, and the one being discussed here was actually known as Eliza/doctor. However, Eliza/doctor is the only one that has been the subject of a great deal of attention by a wide range of critics including psychologists and humanists.

transcript published by Weizenbaum in 1966 demonstrating a sample conversation

between a study participant and Eliza, with Eliza's responses in capital letters:

> Men are all alike.
> IN WHAT WAY
> They're always bugging us about something or other.
> CAN YOU THINK OF A SPECIFIC EXAMPLE
> Well, my boyfriend made me come here.
> YOUR BOYFRIEND MADE YOU COME HERE
> He says I'm depressed much of the time.
> I AM SORRY TO HEAR YOU ARE DEPRESSED
> It's true. I am unhappy.
> DO YOU THINK COMING HERE WILL HELP YOU NOT TO BE UNHAPPY
> I need some help, that much seems certain.
> WHAT WOULD IT MEAN IF YOU GOT SOME HELP
> Perhaps I could learn to get along with my mother.
> TELL ME MORE ABOUT YOUR FAMILY
> My mother takes care of me.
> WHO ELSE IN YOUR FAMILY TAKES CARE OF YOU
> My father.
> YOUR FATHER
> You are like my father in some ways.
> WHAT RESEMBLANCE DO YOU SEE
> You are not very aggressive but I think you don't want me to notice that.
> WHAT MAKES YOU THINK I AM NOT VERY AGGRESSIVE
> You don't argue with me.
> WHY DO YOU THINK I DON'T ARGUE WITH YOU
> You are afraid of me.
> DOES IT PLEASE YOU TO BELIEVE I AM AFRAID OF YOU
> My father is afraid of everybody.
> WHAT ELSE COMES TO MIND WHEN YOU THINK OF YOUR FATHER
> Bullies.
> DOES THAT HAVE ANYTHING TO DO WITH THE FACT THAT YOUR
> BOYFRIEND MADE YOU COME HERE

This conversation demonstrates how Eliza can be a surprisingly engaging correspondent

just by echoing back keywords and phrases in the form of a question. Critics call this the

"Eliza effect," referring to the fact that although Eliza communicates in a programmed

and highly limited way, people often find it compelling, and, moreover, they often

attribute a deeper intelligence to this type of program that it does not have. Noah

Wardrip-Fruin sums up the mechanics of Eliza's communication as follows: "Each

statement by an Eliza script is the result of a multistep transformation of the most recent

audience statement. Many of these transformations include a verbatim portion of the

statement being transformed" (30). For instance, when the participant says "Well, my

boyfriend made me come here," Eliza responds by removing "well" and substituting

"my" and "me" with "your" and "you," so that the reply echoes the participants statement

back: "YOUR BOYFRIEND MADE YOU COME HERE." This result is a relatively

basic transformation at the level of syntactic substitution that more or less repeats the

user's initial statement, but it potentially gives the impression that the program is

listening and that it has a deeper understanding than it does. Weizenbaum points out that

although Eliza may seem magical or at least very impressive to many, "once its inner

workings are explained in language sufficiently plain to induce understanding, its magic

crumbles away; it stands revealed as a mere collection of procedures, each quite

comprehensible. The observer says to himself 'I could have written that'" (1966).

At the same time, Eliza has a number of issues that can disrupt the flow of

interacting with it. The transcript above illustrates that Eliza cannot handle words it does

not recognize or that do not fit into the pattern of the conversation, such as the user's last

reply—"bullies"—which leads to a non sequitur response from Eliza. Just as J R makes

meaning (and money) out of junk mail, users can make meaning out of these

programmed conversations with a computer program. Eliza turns therapy, which is

typically oral, into written form, just as *J R* infuses literary form with the rhythms, and,

sometimes the incoherence, of speech. This particular conversation, taken from

Weizenbaum's 1966 article, appears in nearly every piece of scholarly writing about

Eliza and serves as a basis for analysis, even though it appears to be an edited transcript,

as Eric Loyer points out that when the participant says "You are not very aggressive but I

think you don't want me to notice that," Eliza should respond by saying "What makes

you think I am not very aggressive and I don't want you to notice that" rather than simply

"WHAT MAKES YOU THINK I AM NOT VERY AGGRESSIVE."[31] In this way, the

transcript that serves as the basis for much of the subsequent debate on Eliza is not raw

data generated solely by a computer program but instead already edited by humans for

legibility and clarity. The potentially edited Eliza transcript calls to mind the controversy

over Racter, a computer program that supposedly wrote a book of poetry called *The

Policeman's Beard is Half Constructed* (1983). As it turned out, there was much more

human editing and involvement in the writing process than was initially revealed to make

the poetry legible to human readers. Eliza and Racter both provide a parallel with J R as

all three initially may give the impression of being highly intelligent, but, upon being

tested, they reveal themselves to be much less intelligent, capable, and knowledgeable

then they had seemed. In these cases, in a postmodern turn, we cannot assume that there

is any depth beneath the surface that we see.

Nevertheless, users may experience Eliza from varying perspectives. Contrasting

the "knowing observer" with the "naïve human participant," Espen Aarseth argues, "the

errors produced by such machines can be very funny" for the former while the latter

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[31] This observation is described by Noah Wardip-Fruin on page 39 of *Expressive Processing* (2009).

"project[s] sentience, even intelligence, onto their mechanical partners" (130). In this way, Aarseth suggests that users either embrace humor or naiveté in their interactions with Eliza. In terms of the naïve user, critics have noted that some people who used Eliza became inexplicably attached even when they knew that it was just a computer program. For instance, Weizenbaum claims that his secretary asked him to leave the room to give her privacy when she was corresponding with Eliza (Turkle, 105, 1997). Of course, perhaps her reasoning was that even though she knew Eliza was a computer program, she did not want Weizenbaum to see any of the personal data she was inputting. On the other hand, because Eliza's ability to converse is highly constrained by the capacities of the program, Noah Wardip-Fruin contends that people interacting with Eliza must tailor their answers in a certain way in order to elicit a sensical response and carry on a long form conversation. As a result, he argues that some people enjoyed interacting with Eliza not out of naiveté but for the pleasure of purposefully co-producing strange responses. Wardrip-Fruin gives this example of how a user might play around with the highly structured and often predictable nature of the program:

> You are going to repeat what I say in the form of a question
> WHAT MAKES YOU THINK I AM GOING TO REPEAT WHAT YOU SAY
> IN THE FORM OF A QUESTION (36)

In this demonstration of mastery over a machine feminized by a man to mimic therapeutic conversation, the gendered nature of human computer interaction comes to the fore. In a similar vein, Sherry Turkle points out that "As one becomes experienced with the ways of *Eliza*, one can direct one's remarks either to 'help' the program make seemingly pertinent responses or to provoke nonsense" (1984, 39). Taking either

approach, humans are learning how to talk to machines; in other words, they are developing a kind of critical correspondence literacy for communicating with a computer program. In a related way, young J R learns how to communicate as well as what kind of communication is legible or valuable within the economic and media networks of speculative capitalism. However, these methods of communication are limited and, in J R's case, highly damaging. Thus, while Eliza's gendered communication reflects the feminization of computational output in order to achieve "more natural" human computer interaction, J R's lack of education infantilizes him even as he participates in supposedly adult transactions. Their respective feminization and infantilization turns both Eliza and J R into instruments that can be controlled or played by others.

Although Eliza was intended to serve as an experimental model for AI researchers, and, according to Wardrip-Fruin, to provide an "accessible demonstration of the potential of computing, exciting to those without the specialized knowledge needed to appreciate much of the ongoing research" (27), many psychologists became interested in the possibilities for computer therapy. Turkle describes how Weizenbaum was deeply troubled by this use of Eliza as it suggested that human emotions were simple and programmable; Weizenbaum saw this as part of a larger cultural shift towards mechanization and instrumentalism. In this way, his disagreements about the therapeutic use of the experimental program led him to become a humanist and computer critic. Eliza's layered circulation among computer scientists, therapists, humanists, and the broader public exemplifies the potential risks of public scholarship, where experiments get taken up in unintended ways as people read and interpret specialized knowledge work

far afield from its original context. Eliza crossed disciplinary boundaries and became an object of interest well outside of its initial site of production; in this way, it models disciplinary bleed where scientific knowledge becomes "digitally" humanistic and/or social sciences readily adapt the paradigms and solutionism of the hard sciences. The fact that psychologists were so eager to adapt techno-science presumably as a way to make their work more quantifiable, legible, expedient, and data-driven resonates with those same values that J R embraces in his business dealings on Wall Street.

Eleven-year old J R and Eliza both are able to pass as something they are not: an adult businessperson and a therapist, respectively, even as neither of them are that hard to trip up, to reveal the cracks in each charade, as there are some very obvious bits of information that they are each missing. By making visible their own process of passing, J R and Eliza both perform what I am calling "failing passing." If we already know, as Wendy Chun points out, that computer systems often do not function as promised—Chun argues that "we need to insist on the failures and the actual operations of technology" rather than upon utopian or dystopian technological rhetoric (9)—then our insistence on using computing operations for communicating in the humanities represents an educational model of "failing passing," where our performance of literacies is always partial, contingent, and entangled with technologies of writing that we cannot fully control. This raises a related question about J R—does he learn and grow throughout the novel, or does he function like Eliza, as a kind of "dumb" AI who is simply spitting back pre-programmed responses based on different kinds of inputs? J R does seem to learn, but what he learns is highly constrained by the instrumental values he so readily embraces as

a game he thinks he can win. Both J R and Eliza then function as mirrors for society as they basically mimic what they see. In the case of *J R*, the mimicry is satire, and, as for Eliza, in his 1976 book, Weizenbaum described the program as "parody" (188, 1976). In this way, they both serve as critical models of human communication gone wrong during the 1960s and 70s, when people are playing around with the possibilities of writing back and forth although, as with any experiment, the results are not predictable or unambiguous.

In the same time period, artists and writers created potentially more hopeful, non-instrumental experiments in networked correspondence. While many artists in the 1970s experimented with electronic media, as discussed by Annmarie Chandler and Norie Neumark (2005), others relied on analogue networks like the postal system in experiments theorized by Craig Saper (2001). One fairly well known example is mail art, which eschewed the trappings of high art displayed in galleries and instead focused on collaboration and social networks. In their survey of mail art, Michael Crane and Mary Stofflet (1984) claim that while mail art became a distinct medium in the 1950s, it was most significant in the 1970s. They argue that mail art exemplifies a postmodern, anti-historical sensibility (xi) even as it provides "expansive, transformative models" for communication (3). Mail art and assemblings, a form of collaborative publication where each participant sends in a page in order to produce a book, were generally created by small communities of like-minded participants with shared interests and investments. Although networked art of the 1960s and 70s tended to circulate within insular, if sometimes geographically dispersed artistic communities, Saper argues that these works

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express a broader significance as they use large impersonal systems as a staging ground for what he calls "intimate bureaucracies," which he claims "makes poetic use of the trappings of large bureaucratic systems and procedures (e.g., logos, stamps) to create intimate aesthetic situations, including the pleasures of sharing a specific knowledge or a new language among a small network of participants" (xii). In this way, Saper stresses that rather than creating avant-garde art forms that are completely divorced from the everyday experience of life in postindustrial cultures, networked art tends to practice the idea that "the only way *out* is *through*" (16). This idea is predicated on an acceptance of the technical noise inevitably resulting from art and literature moving "through" hyperindustrial societies as preferable to worse kinds of censorship, control, and obsolescence resulting from art and literature that avoids seemingly ubiquitous economic, social, and cultural formations. The idea of engaging, mimicking, and satirizing bureaucratic and economic networks modeled by experiments in networked art resonate with the world depicted in *J R* and with the work of "critical mimesis" that the novel performs.

Conclusion: Critical Literacy as Non-Instrumental

J R and Eliza, along with mail art, raise fundamental questions about what it means to read and write in technologically mediated networks. The case of eleven-year old J R and of the naïve correspondents who believed that Eliza could successfully perform psychotherapy dramatize the potential for networked communication, literacy, and learning to be dominated by instrumentalism. The epitome of this tendency is the

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earlier-mentioned advertisement for Universal Detectives, which states, "our course is designed to be concise and to the point, not just words to confuse you. We do not teach theories, but just present you with factual information." J R's insistence that a pamphlet called "Understanding Financial Statements" is "literture [sic]" also reflects a deeply instrumental approach to learning and literary study. However, while J R's definition of "literture" suggests that instrumental networks are crowding out the opportunity for literary discourses, in *Relays* (1999), Bernhardt Siegert polemically argues the opposite. He claims, from a kind of Kittlerian point of view, that literature is merely an effect, or an "epoch," of the postal system. Based on a discussion of eighteenth century postal networks in Europe, he suggests,

> Literature, as an art of human beings, is a gift of interception, which operates on the basis of feedback loops between human sense and the postal materiality of data processing known as the alphabet. As long as processing in real time was not available, data always had to be stored intermediately somewhere—on skin, wax, clay, stone, papyrus, wood, or the cerebral cortex—in order to be transmitted or otherwise processed. It was in precisely this way that data became something palpable for human beings, that it opened up the field of art" (12).

In this way, Siegert sees the postal service as the source of the literary, as literature emerged, according to Siegert, as a mutation within instrumental postal networks rather than as a separate entity. From the opposite perspective, the postal system in *J R* seems poised to bring about the end of literary discourse, replacing it instead with corporate and techno-enthusiast discourses even as these very discourses are the sources that most shape *J R*. Eliza represents a separate but related discursive mutation than the one found in *J R* as some therapists tried to turn an experiment in computer science into a transformation in therapeutic practice, moving away from a subjective and historically-

situated model towards a more objective and quantifiable one. In all of these instances, applied knowledge is valued above literary and critical epistemologies, and techno-scientific discourses trump literary and critical ones, which lack the simplicity and rhetorical power of the instrumental writing that J R deems "literture." The tension between scientific and humanistic discourse emerging in a discussion of these experiments from the 1960s and 70s continues into the present day.

Even as *J R* and Eliza both provide critiques of instrumental, applied ways of reading and knowing, at the same time, they also each model critical, imaginative alternatives. The formal features of *J R*—its size, scope, and disjointed narration—critically contextualize and call into question the very literal-mindedness, ahistoricism, and ignorance depicted in the narrative. Likewise, the opportunities for self-reflexive play with Eliza, where users may intentionally prompt responses such "WHAT MAKES YOU THINK I AM GOING TO REPEAT WHAT YOU SAY IN THE FORM OF A QUESTION," create space for critical correspondence literacies that disrupt and/or contextualize correspondence in ways that point towards alternatives to our everyday, common sense, and instrumental use of networks. In all of these cases, our correspondence becomes something meaningful even in systems that are designed to be just the opposite.

I conclude then, drawing upon the work of Bernard Stiegler, that education by correspondence functions as a *pharmakon*, where it potentially acts as either poison or cure for the ills of post-industrial society. Ultimately I am suggesting that *J R*, Eliza, and networked art all reveal the value of developing critical, non-instrumental practices of

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literacy in a time of significant technological, social, and cultural transformation. Critical literacies of correspondence are a response to the valorization of scientific discourse and to a belief in the supposed neutrality of certain systems, technologies and modes of communication. People can still learn within certain kinds of economic networks, but it is hard for them to learn things that will serve themselves and their communities, and that will contribute towards creating a different kind of future that does not simply replicate the status quo.

In her study of digital media in contemporary higher education, aptly titled *The War on Learning* (2014), Elizabeth Losh describes the phenomenon of students posting how-to videos on YouTube designed to teach other students how to get away with cheating in their college classes. Losh notes that the makers of these videos "had achieved mastery of something that seemed relevant to success in the university, but it wasn't what their professors wanted them to have learned" (18). These cheating videos conjure visions of present day versions of J R—students who are serious about learning, but in their internalization of the instrumentalism around them, learn how to do the things garnering the most rewards—in this case, performing well on tests—at the expense of the critical learning that they might be otherwise engaging in. This is why literacy, as in the ability to read and write, or even to make YouTube videos, share images, or create memes, is not nearly enough, and why democratizing the technological means of communication requires critical and imaginative solutions rather than technocratic ones. Instead, these experiments make us think about how we must situate our literacy in order to consider the oral and written communication, human and machine, social and

exclusionary, instrumental and theoretical discourses that we all must navigate as readers and as "life-long learners" within networked information cultures. How will we choose to process, engage, disrupt or avoid big data flows? Ultimately, I am suggesting that literary values can help us to navigate these territories and develop modes of reading and writing that offer an alternative to those depicted in *J R* that threaten to flatten out human relations and to transform our every interaction into a transaction. The experimental works discussed here do that, and they point to the value of experimenting with form—to design—not as something that always works or that is always able to disrupt hegemonic discourses and structures, but rather as something that challenges instrumental forms of reading and writing. Especially important is the fact that these works are all creative "social media" that exceed our current idea of what social media is and can be; in this way, these experiments from the past point towards a different future, where we might imagine a kind of tactical non-instrumentality in particularly instrumentalized moments through the paradigm of reparative reading.

Just as the educators and administrators in *J R* grapple with how to educate students within and beyond the traditional classroom space through the use of pervasive mid-century technologies like television, twenty-first century educators and administrators similarly grapple with how to effectively use computers, especially handheld mobile devices, for teaching and learning in the classroom and outside of it. In a review of the 2012 Dalkey Archive edition of *J R*, Lee Konstantinou writes, "I'd suggest that what *J R* documents is the way that America is hollowing out the foundation necessary to even read a book like it." In this way, the irony is that technologically

mediated education may be failing to equip students to engage with literature and art critiquing its premises. This chapter began by discussing present day experiments in networked learning, including MOOCs and DOCCs, and I now circle back to place those alongside *J R* for a moment here. In the case of MOOCs, DOCCs, and the educational experiments depicted in the novel, the democratization of education is imperfect and valuable knowledges become increasingly difficult to transmit even as transmission becomes increasingly within reach. Ultimately, I suggest that non-instrumental literacies, or the ability to read networked communication against the grain and to practice reparative reading strategies that foreground surprise and affect within highly instrumentalized systems of education, is not only needed in the present day, but is also a larger historical problem that people have grappled with and will continue to grapple with in the future. Within instrumental, data-driven, and literal-minded networks, we must find ways to educate ourselves, and this chapter demonstrates that formal experiments are a key part of our past, present, and future of networked learning. The trick is to find what is generative and productive in our experimentation and to resist cooptation or the fossilization of bad ideas that may be appealing due to their apparent expediency, scalability, or replicability. Turning from the "passing failing" encyclopedic postmodern novel, the next chapter explores small-scale literary experiments that model feminist responses to the kinds of gendered and exclusionary technological discourses circulating within *J R* and that suggest expansive, inclusive, and feminist future literacies not fully imaginable in the context of *J R*.

Chapter 3

Reading as Fluid Process: Feminist Fictions of Digital Literacy

Through an analysis of *J R* and Eliza, the previous chapter explores exclusionary,

masculinist discourses alongside discourses of feminization and infantilization circulating

within the technocultural capitalist networks of the 1960s and 70s. Focusing on the 1990s

and 2000s, this chapter studies feminist responses to gendered technological discourses.

From its origins in military research and development to popular present-day iterations

like *Grand Theft Auto* and Reddit,[1] digital media innovation and expertise have long been

tied to contemporary constructions of masculinity. For reasons related to access and

education, young men historically have dominated digital-based pursuits such as

programming and gaming; as a result, popular descriptions of everyday computer use

such as David Bennahum's memoir of growing up digital *Extra Life* (1999) have tended

to focus on white male users as the norm for understanding what digital literacy looks

like. Critics like Christopher Kelty and Henry Jenkins whose research focuses on "geeks"

and "early adopters" respectively share a similar if slightly expanded focus.[2] From this

perspective, Kelty's *Two Bits* (2008) essentially argues that without the ability to write,

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[1] See Friedrich Kittler and Patrick Crogan for historical accounts on the military origins of digital media. See Lister et al. for other origins of digital media including the histories of logic, mathematics, and physical sciences.

[2] Henry Jenkins makes this plain while pointing out that change is coming: "Most of the people depicted in this book are early adopters. In this country, they are disproportionately white, male, middle class, and college educated. These are people who have the greatest access to new media technologies and have mastered the skills needed to fully participate in these new knowledge cultures. I don't assume that these cultural practices will remain the same as we broaden access and participation" (23). As for Kelty, he does write about geeks in multiple global cities, from the US to Germany to India, including a few female geeks.

share, and critique computer code, digital media users cannot participate in a meaningful way in the digital public sphere. Likewise, the current emphasis on "maker culture" and programming in fields like the digital humanities attests to the widespread acceptance of masculinist values, particularly the tendency to prioritize the ability to code above all else, as central to current conceptions of computing. At the same time, these computing discourses tend to denigrate apparently more passive, problematically feminizing, and consumerist uses of digital media.

However, as computing and computer literacy become more central to the ability to access power in our everyday lives, feminists have sought to counter male-centered narratives by making women's historical and present-day participation, innovation, and values more visible within digital media studies. From danah boyd's ethnographic work on teenage girls' use of social networks to publications honoring Ada Lovelace's intellectual contributions to modern computing,[3] contemporary scholars are in the process of once again recovering lost histories while imagining new forms of women's collectivity online. Taking inspiration from this history, and noticing its often fragmentary and historically fragmented recapitulations, this chapter reads several digital fictions created in the last 25 years as models of feminist interventions in the emerging fields of digital literacy and digital collectivity that challenge the widespread, masculinist norms for the use of digital technology.[4]

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[3] *Ada: A Journal of Gender, New Media, and Technology* is an online feminist media studies journal founded in 2012.

[4] Throughout this chapter, I use the intentionally vague term "digital fiction" to encompass a variety of experimental, digital born literary forms with some interactive affordances such as hyperlinks and word parsers that offer the user some level of meaningful choices as they read. Much ink has been spilled

Experimental digital literary forms in general, and hypertext in particular, have

long been linked to notions of femininity and feminism, likely because of their perceived

fluidity and non-linearity. Several important early works of hypertext, including Carolyn

Guyer's *Quibbling* (1993), VNS Matrix's *All New Gen* (1993), Christine Tamblyn's *She*

Loves It, She Loves It Not: Women and Technology (1993), Shelley Jackson's *Patchwork*

Girl (1995), Adriene Jenik's *Mauve Desert* (1997), and the Labyrinth Project's *The Dawn*

at My Back DVD-Rom (2003), have been described in explicitly gendered terms by their

authors.[5] Diane Greco cautions against over-stating the connection between hypertext and

feminism even as she suggests that hypertext is potentially subversive of "groups or

individuals exercising power and authority over others" (n.p). More recently, Katherine

Hayles's (2005) reading of *Patchwork Girl* also engages with feminist scholarship even

as it moves away from essentializing feminist discourses. Hayles argues that hypertext

like *Patchwork Girl* challenges historically western notions of authorship as individual,

male and property-based by redefining authorship as feminine, collaborative, and fluid. In

particular, by emphasizing "intermediation," or the feedback loop between human

writer/reader and machine, Hayles's *My Mother was a Computer* (2005) takes up Donna

Haraway's call for feminists to embrace and reimagine the cyborg as a figure with the

potential to foster positive social change instead of simply dismissing the cyborg as a

differentiating between ergodic literature, hypertext, electronic literature, digital art, and interactive fiction, and I will not repeat those conversations here. For a useful overview, see Katherine Hayles's *Electronic Literature* (2008).

[5] For more on Shelley Jackson's views, see Jackson's "Stitch Bitch" and Hayles' "Flickering Connectivities in Shelley Jackson's *Patchwork Girl*" in *My Mother was a Computer* (2005). For more on Guyer's views, see George Landow's *Hypertext* (2006). Critics like George Landow have also explored this line of thinking, although even Landow's notably hyperbolic account of how hypertext empowers readers avoids making any overt claims for the feminism of hypertext.

vehicle of military-technoscientific patriarchal oppression. Haraway famously claims, "I would rather be a cyborg than a goddess" (1985, 223); in making this statement, she gestures towards the potential for humans to use technology to engage in more complex and potentially more meaningful forms of feminism rather than simply rejecting it. Building on these waves and fragments of critical feminist approaches to technology in general and to writing technology as hypertext in particular, this chapter studies a number of modes of digital fiction, including but not limited to hypertext.

The three digital fictions under discussion are short-form, interactive, text-based epistolary romances. The first is Carolyn Guyer's abovementioned *Quibbling* (1993), a hypertext that relates, in a non-linear fashion, the stories of several loosely interconnected characters through email messages, poetry, quotations, dialogue, and journal entries. *Quibbling* is authored on Storyspace, software that, as I will discuss later on, was developed in the late 1980s and used to author a number of influential hypertexts. Given the complex histories, both of technologies and feminist critique, that are at stake here, an important aspect of the comparative project at the heart of this chapter is necessarily archeological. As of now, *Quibbling* has not been nearly as widely discussed as other Storyspace works like *Afternoon: a story* (1989) or *Patchwork Girl* (1995), and, because it is only available via floppy disk and unable to run on recent operating systems, it is in danger of becoming inaccessible to readers, not to mention scholars and students of

digital literature.[6] The other two works under discussion are readily available online for the cost of hardware and web access. Christine Love's *Digital: A Love Story* (2010) is an interactive fiction set in the 1980s narrated through a series of messages on various Bulletin Board Systems (BBS) where the user falls in love with a bot named Emilia. The interface and functionality of *Digital*, from the basic, monotone interface and pixelated typefaces to the repetitive sound of a dial up modem, evoke the early days of networked personal computing; meanwhile, the themes evoke ancient and modern stories of "female simulacra" relevant to technological histories and histories of literacy alike, from Pandora to Pygmalion. Lastly, Emily Short and Liza Daly's *First Draft of the Revolution* (2012) is a digital story set in eighteenth century France told through a series of letters between a husband and wife regarding their relationship and their future. As the reader of *First Draft* advances through the text, she accesses multiple versions of each letter and revises each one. Although both *Digital* and *First Draft* have been reviewed on gaming blogs, neither have been addressed as literary forms specifically, nor have the reading practices they demand received scholarly attention. I bring together the three abovementioned works for the first time because they exemplify different strategies for self-reflexive literacies in feminist storytelling that challenge narrowly instrumental practices of correspondence, such as the ones discussed in chapter 2.

While the formal features and narratives of *Quibbling*, *Digital*, and *First Draft* are quite disparate, these three digital fictions share several things in common: first, they are

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[6] Scholars are working on figuring out how to preserve early electronic literature, and according to the website for the publisher of Storyspace, Eastgate Systems, they are currently working on making versions available for iPads. It's hard to say how much of the original look, functionality, and user experience will be preserved in that case.

all short-form works; second, they are romances; third, they are told exclusively or partially in the epistolary mode; and, fourth, they are interactive, although in a quite limited way, in that they respond to feedback to some extent. These four elements, generally associated with the popular and the lowbrow, are transformed into feminist tactics for critically reimagining digital literacy. The strategic mutations modeled by these literary works and the sustained engagement that they provide readers offers an answer to popular commentators such as Nicholas Carr and Sven Birkerts, who lament the end of the book as they assume it will bring the end of long forms of attention, in spite of ample evidence to the contrary, from Netflix to *World of Warcraft*. Feminist digital fictions also call into question techno-enthusiast discourse on the other end of the spectrum, perhaps epitomized best by literary critic Franco Moretti, who seems poised to abandon close reading all together, as he envisions the future of the literary dominated by quantitative methods through an emphasis on "big data" and "distant reading." From both directions then, there is a discourse of radical transformation in relation to digital reading that often, whether woefully or enthusiastically, over-emphasizes change while downplaying continuities.

Between these polarizing visions, feminist digital fictions suggest an alternative model for understanding literacy in the digital age. These short-form literary works critically sustain our attention and demand high levels of cognitive and affective engagement, an especially important point of reference in the age of the "app." Because of their length, short-form works, on the one hand, are fairly accessible; on the other hand, they often have room to be the most experimental, pointing the expressive power of

the literary in informatic cultures in new, yet, as I explain in this chapter, critically-informed, directions. Although *Digital* and *First Draft* have notable visual effects and, in the case of *Digital*, audio effects as well, all three works are primarily text-based and all of them use and remix literary conventions; as a result, I suggest that they can be productively read within the tradition of digital literature, although they all borrow functionalities and ergodic strategies from digital games as well. The fact that *Quibbling* is text-based is consistent with the heavily textual nature of interactivity for early computing—via command line interfaces, which came into use after the widespread use of punch cards in even earlier computing efforts. From our current vantage point, command-line interfaces continue to produce nostalgia for an apparently less complex and more direct mode of digital interactivity. It is more notable that the two recent works are text-based as digital media decidedly manifests the so-called "visual turn" of popular multimedia computing since the mid 1980s. For some critics, text-centric literacy is becoming outdated as multimodal or visual literacies gain increasing legitimacy in the twenty-first century; nonetheless, the digital fictions explored in this chapter foreground "textuality" rather than binary digitality or audiovisual multimedia as a central site of meaning, even as they bring haptic, visual, and audio modes of literacy to the fore.

In terms of genre, the romance narrative may seem like an unlikely site for feminist storytelling as it has historically been highly invested in reproducing capitalist, patriarchal representations of gendered and sexed norms and relations, a pattern continuing into the present day, exemplified by the success of popular romances like E. L. James's *Fifty Shades of Grey* (2011). In her groundbreaking 1984 study of romance

novels and their readers, Janice Radway finds ample evidence to support the view that romance novels "actively insist[] on the desirability, naturalness, and benefits of [patriarchy] by portraying it not as the imposed necessity that it is but as a freely designed, personally controlled, individual choice" (208). At the same time, Radway argues that romance readers' habits, feelings, and everyday practices of literacy paradoxically function as an oppositional practice with the potential to create slippages within hegemonic cultural narratives where women make meaning out of mass-produced objects.[7] In contrast to the kinds of mass-market paperbacks analyzed by Radway, the romance stories addressed in this chapter approach romance from a feminist perspective as they seek to remix and ultimately reinvent the romance so that self-reflexive, queer, and alternative narratives about love, relationships, and femininity can emerge.

Reading feminist digital fictions as social texts allows us to see how they engage with networked correspondence. In their exploration of everyday life and, in particular the apparently lowly task of correspondence, epistolary narratives, from their popular circulation in the eighteenth century to what Laura Rotunno (2006) terms "email novels," are closely interconnected with feminine discourse.[8] At the same time, correspondence has been a key problematic in critically acclaimed postmodern novels, as discussed in the previous chapter in regards to William Gaddis's *J R* (1975) or Thomas Pynchon's *The Crying of Lot 49* (1966), perhaps because the typographical or other emphasis on the

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[7] Radway's book is very much a product of second wave feminism and does little to account for race or transnational geography, an omission that is especially notable since so many of the romances under discussion take place in so-called exotic locales.

[8] See Gilroy and Verhoeven (2000) for an in-depth survey of the connection between women and epistolary novels from the eighteenth century to the present.

back and forth of correspondence between fictional characters (and between the reader) often self-reflexively draws attention to the communication process itself as much as what is being communicated. The epistolary form is a historical literary practice that continues into the present day in both print and digital forms. Some contemporary print epistolary novels, such as Ana Castillo's *Mixquiahuala Letters* (1986) and Kathy Acker's *Don Quixote* (1986) point towards new political valences as they create correspondence fiction that are more *feminist* than feminine. For Linda S. Kauffman (2006), Kathy Acker's experimental epistolary novel *Don Quixote* offers a key example of a feminist "anti-aesthetic" which mixes high and low cultural forms and wields the style of literary postmodernism "as an oppositional politics rather than a mere pastiche" (201). The digital epistolary romance tradition shares much in common with its print predecessors; for instance, just as Kathy Acker's work critically combines high and low culture, digital fictions similarly mix complex formal hypertextual or hypermedia features with depictions of everyday life to create new models for feminist digital literacies. This chapter explores uncharted territory: the aesthetics of digital epistolary fictions; in doing so, it draws on the work of feminist internet critics like Susanna Paasonen, who argues, as I discuss in chapter 1, that the concept of "resonance" is key for understanding how meaning circulates fluidly and sometimes unexpectedly in digital networks. This chapter also relies on feminist theory, literary history, theories of interactivity, and research on social media.

Feminist digital fictions provide a crucial counterpoint to recent theories of media literacy that prioritize technical skills or access in terms of broad participation. The texts

examined here are interactive only in a highly limited sense, and they are not participatory in the "social" sense of Web 2.0; nonetheless, they circulate within the social web as readers discuss them in online fora, and this fluid circulation models the affective resonance described by Paasonen as a central feature of networked digital literacy. Focusing on their "readerliness" as well as their "textuality," I argue that feminist digital fictions then produce fluid responses within readers as they emphasize the process of reading over and in conjunction with the words on screen as such. As a note about terminology, I use the term "reader" throughout rather than "player," "user," or "interactor" primarily for the sake of consistency but also as a means to foreground the literary concerns and challenges that the texts present. *First Draft*, *Digital*, and *Quibbling* all value self-reflexivity in terms of the process of reading, and they each propose distinct yet overlapping models for feminist digital literacy. In *First Draft*, literacy is a layered and multiplied practice of archeological uncovering. In *Digital*, literacy is our ability to access and read material and affective "posthuman" networks where humans and machines read and write collaboratively. In *Quibbling*, literacy is intimately connected with navigating visualizations, where literary form becomes data and data becomes literature.

I suggest that multiplicity, accessibility, and fluid navigation are the defining characteristics of feminist digital fictions, and that these characteristics point towards digital literacies that are more complex than those often articulated by maker and gamer cultures, such as the "recursive" digital literacy described by Kelty, where reading is heavily contingent upon familiarity with computer code, and what Henry Jenkins has

called "participatory culture," where use-generated data creates built value normatively controlled or owned by others. I argue that all three feminist digital fictions emphasize reading as an act of becoming that does not depend on technical complexity but rather on accessibility of data, multiplicity of the surfaces of reading and writing, and processual, self-reflexive revealing of the joints and gaps that characterize the entangled subjectivities and materialities of networked reading and writing. I return here to Eve Kosofsky Sedgwick's notion of "reparative reading," which emphasizes reading with an openness to surprise or generative affect in order to understand the critical function of feminist digital fiction. Pushing back against the frequent practice of reading teleological narratives of progress into transformations in technologies of composition, this chapter begins with *First Draft* and *Digital*, the two contemporary projects, and then continues on to an analysis of *Quibbling*, the earlier work. In this way, I seek to provide a history and theory of feminist reading ricocheting unevenly through time as the chapter points to various feminist modes for engagement across and within digital, textual, social, and affective networks, an especially important network to trace in light of contemporary misogynistic reactions amongst some male gamers about the status, value, and potential of female makers and players of digital games.[9] Thus, the value of reading feminist digital composition as literary texts rather than as digital games is that it allows us to avoid trying to legitimate games broadly as potentially more inclusive if only we can "educate" their makers and players; instead, feminist digital fictions exceed the norms of gameplay even as they push the boundaries of the literary values that they embrace.

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[9] Zoe Quinn's *Depression Quest* (2013), a hypertext about depression, was seemingly a catalyst for recent discussions in online game-playing communities.

***First Draft of the Revolution*: Reading as Archeology**

Set in France in 1788, just a year before the start of the French Revolution, Emily Short and Liza Daly's *First Draft of the Revolution* (2012) is a short-form epistolary hypertext that explores emerging social conflict from the perspective of a noble wife and husband, Juliette and Henri. After being sent to live in the countryside by her husband, the young, pious Juliette meets a radical friar and his protégé and must decide where her loyalties lie. *First Draft* is narrated through letters sent between Juliette, Henri, Henri's sister Alise, and Juliette's former teacher over the course of several months. Each letter contains a series of hyperlinks that allow the reader to uncover variations that alter the tone, meaning, and content of the message. Although the interactivity of *First Draft* is fairly simple and highly restricted, it models how the digital epistolary form can draw the reader's attention to the often invisible processes underlying literacy and composition; in this way, *First Draft* explores reading and writing as multiplicity, where the layered practices of becoming supersede any one final instantiation they may produce.

Hypertext, or writing that uses links, has become so ubiquitous in the form of web links (i.e. HTML) that it has to a significant extent become invisible as a writing style. [10] As a result, digital writing is frequently fairly homogenous in form, as it is dominated by the norms of hypertext writing. Many literary hypertexts intentionally rely on complex interfaces and navigation in order to de-familiarize the now familiar process of digital,

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[10] Hyperlinks are a foundational concept in modern computing first articulated by Vannevar Bush in 1945 and theorized at greater length in George Landow's *Hypertext* (2006).

hyper-linked reading.[11] In fact, Lori Emerson identifies an "insurgent twenty-first-century poetics" coming from "digital literature that is deliberately difficult to navigate or whose interfaces are anything but user-friendly" (4). Eschewing this trend towards critical difficulty, *First Draft* mimics the features of a print book, from its opening designed to resemble a textured book cover to its use of page numbers. In some ways, *First Draft* offers more opportunities for variation than the traditional print book, as 18 pages out of 26 have multiple variations; in other ways, it is much more restricted than a print book as readers cannot easily skip ahead or begin anywhere they choose. As critics like Espen Aarseth have shown, it would be a misunderstanding of both the print book and the digital book to conclude that the former is inherently characterized by fixity while the latter is characterized by multiplicity. In fact, historian Adrian Johns (2000) demonstrates the inaccuracy of the conventional wisdom that the widespread adaptation of the printing press somehow ushered in the age of print as a time of nearly complete standardization of written works; instead, he argues, based on archival research of different editions of early print books, that the print book has always been characterized by variation, multiplicity, and a proliferation of difference.[12] In a similar spirit, *First Draft* portrays the written word as mutable and unstable, calling into question the apparent fixity of print by presenting readers with multiple drafts of each letter sent in the story. Imagining the written word as fluid by emphasizing the layered process of production, *First Draft* suggests that what readers don't see may be just as important as what they do see. In this

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[11] For more on disorientation in hypertext reading, see the discussion of difficulty and exploratory navigation in chapter 4.

[12] Johns's book responds most directly to Elizabeth Eisenstein's seminal *The Printing Press as an Agent of Change* (1979), which argues that fixity across time and distance is an important characteristic of print.

way, the work's "ergodic" interactivity offers a feminist mode for thinking through the relative invisibility of women in the historical record as it suggests that historical documents are always only partial, as they don't let us see the process of drafting.

The first letter in the story, written by Juliette to her husband, where she complains about the countryside and begs to return home, contains two hyperlinked passages. The first linked passage reads: "The society here is very bad. I do not know how I can have offended you to be exiled in this wretched place" (4). When the reader clicks on the hyperlink, a note pops up that gives the reader insight into Juliette's writing process; it states, "Rewrite this: 'I should not insult his favorite village'" (4). After the reader clicks on the "Rewrite this" link, the initial text lamenting the situation is replaced with a more upbeat version: "The weather is very beautiful. It is not so quiet here as I feared, because we have a new acquaintance. He says he has come here to give spiritual advice to the son of a nobleman." The mood and content have shifted substantially here, as Juliette describes her situation in a much more positive light; however, having just read the previous version, the reader suspects either that Juliette may be hiding her true feelings in the second draft, or that she was exaggerating in the first draft. Either way, we can already see that there is no clear relationship between writing subjectivity for correspondence and truth-telling, and we may begin to question what it means to make our truths legible for others. The above-mentioned revision not only contains new information, but also two new hyperlinks that allow the reader to see an even further revised letter that reveals more information about the handsome friar. By clicking on the words "It is not so quiet here as I feared, because we have a new acquaintance," the

reader calls up another revision. This time, we are given two different thoughts from Juliette about how to revise this sentence. The first choice is based on the thought "I should just mention this man is a friar" whereas the second thought is, "No, let him be jealous." In this case, the reader must select one or the other, not knowing what exact revision each will produce. In this way, reading the letter becomes an act of collaborative writing, as the reader must select one of two revisions. Unlike a game where one choice may be right and another wrong, or where different choices lead to different narrative outcomes, the choices presented in *First Draft* are editorial, and they do not alter the sequence of events in the narrative. The interactivity of *First Draft* is thus much more highly constricted than the syntactic substitutions of Eliza discussed in chapter 2 or the text-based interactive fiction discussed below. When I choose the second option, designed to make Henri jealous, the text fills in with a description of the friar's physical appearance, including his "striking face," piercing eyes," and "animal vigor." This highly sexualized description foreshadows the erotic tension between Juliette and the friar and, at the same time, it calls to mind the rhetoric of the mass-market romance novel. I am unable to go back and find out what would have happened had I selected the first option, unless I restart the story. As a result, readers may want to read through multiple times to uncover different aspects of the story that they could not pursue the first time and revisionary "writing" thus becomes a process of reparative reading.

Through its use of hyperlinks, *First Draft* models how simple interactivities like linking can create the opportunity for critical, reflexive media use. Describing this type of functionality as "interactivity" would be considered an overstatement by Espen Aarseth,

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who has convincingly argued that the term "interactive" is ideologically loaded and problematically rooted in commercial rhetoric. Aarseth focuses on the fact that some texts are "ergodic," meaning that they require some non-trivial amount of effort to experience, effort beyond something like turning a page. These "cybertexts," according to Aarseth, are distinctive because they create feedback loops between users and the text. Rather than use his idiosyncratic terms, I use the term "interactive" to refer not to any hyperbolic, commercial notion of user empowerment or agency but rather to recognize functionalities, such as the hyperlinks in *First Draft*, that respond to feedback. If agency and interactivity are not the same, what is the relationship between them? Ernest Adams neatly differentiates the two from the perspective of game studies, claiming that interactivity refers broadly to "things [for players] to do that affect the game world" (31) whereas agency specifically refers to "the player's ability to influence the plot line" (29). Adams defines agency narrowly, as the ability to exert some control over the plot, although he notes that other critics like Michael Mateas define agency more expansively, as "a feeling that the player gets" (30). Mateas's definition of agency is both more vague and yet more nuanced as it allows us to think about agency not as something inherent to a game or work of digital fiction but rather as an affective response on the part of a player or reader. In this way, *First Draft* allows us to experience resonance in a similar mode that Paasonen describes in terms of networked circulation of affect; in this case, resonance emerges from the process of reading and re-reading, which operate as a form of "re-writing," the text.

Does the reader of *First Draft* experience agency? The reader uses the hyperlinks to "revise" the letters, which consists entirely of calling up pre-written revisions rather than generating new material. Although both the sequence of letters and the outcome of *First Draft* are always the same—Juliette never leaves Henri in spite of the reader's revisions—the story appears in different variations depending on which links the reader follows. As a result, each reader creates her own version of *First Draft* as she reads. Once the reader makes revisions to any given letter, it is saved as is and cannot be changed until the reader clicks the "restart the story" button, which causes the reader to begin on the first page. Based on her choice of hyperlinks, each reader, in a sense, writes and may revise her own first draft of *First Draft*, although here the process of writing looks postmodern, more like *bricolage*, in the sense described by Claude Lévi-Strauss of "making do" with the materials at hand, than like traditional notions of literary authorship, rooted in the eighteenth century and invested in individuality, originality, and property.[13] Reading and writing blend together, and a collaborative, hybrid, and fluid process of literacy comes to the fore.

First Draft, through its limited interactivity and the questions it raises around whether or not the reader has any agency, points to a feminist orientation for digital literary forms by making us think about what action may look like within highly constrained social or cultural settings. As discussed in chapter 1, many media critics, notably Yochai Benkler, Christopher Kelty, and Henry Jenkins, have suggested that the ability to write ourselves into the digital public sphere, whether by writing code or

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[13] See Katherine Hayles's *My Mother was a Computer* (2005) for a more in depth discussion of historical constructions of authorship.

sending a tweet, gives us newfound agency. *First Draft* contests these kinds of narratives by emphasizing the limits on what can be written within social spaces. It does this in two ways: first, by giving the reader only a small number of choices for each hyperlink, and, second, by requiring readers to make certain revision before allowing them to finalize the letter. As a result, the interactivity of the project mirrors the way that women make do, and the agency that we all have as readers and writers within patriarchy, even if that agency is highly constrained and interconnected with power hierarchies.

In this way, the feminist orientation of *First Draft* comes from the way it makes visible how the characters shape their discourse based on gendered and class-based power relations. In the example above, Juliette crafts her words on the one hand so as not to anger her husband and on the other hand to intentionally provoke his jealousy; Henri also revises and crafts his letters so as to both appease Juliette but also to convince her that she must remain in the countryside. The revision-based interactivity reflects the fact that all members of society must shape their words within a kind of, literally, in this case, pre-scripted language of gendered communication. Ian Bogost uses the term "procedural rhetoric" to refer to the "practice of using processes persuasively" as opposed to words or images alone (3). Bogost explores procedural rhetoric within video games, arguing that it is not primarily the content of a game that functions rhetorically, but rather the processes modeled in the game, and the same could be said of a work of hypertext like *First Draft*, where the process of revision underscores the complexity and contingency of literacy. Through its emphasis on the process of writing as revision, *First Draft* asks us to consider what can and cannot be written or what histories can and cannot be changed, and it

underscores the idea that because writing is a process rather than simply a direct action, writing does not and cannot "speak for itself" and that it does not create meaningful forms of agency on its own either.

The plot centers around Juliette's discovery that the friar is a radical who wishes to use a talented young man, who happens to be Henri's bastard son, to overthrow the current social order. Regarding the friar, she writes, "his zealous passion for good makes him angry against the magic-using ranks; he says that they have not been wise with their gift, and that they betray the poor" (10). The young man has magical abilities, which are common among the nobility but unheard of within the lower classes, especially because magic is passed down genetically, so that the nobility intermarry one another to consolidate their power. Because of its complexity, however, those who possess it must also be taught how to use it. Regarding the young man's abilities, Henri remarks in a draft of a letter to Juliette, "If he truly learned his magic alone, with no one of his parents' class to guide him, he must have a considerable talent. You will not know this yourself, of course, but when one first learns to see the correspondences in the world, it is like seeing a sheet of letters one cannot read" (8). Henri explicitly links magic to literacy, comparing it to learning how to read; moreover, like literacy, magic is closely linked with political and social power, as the nobility's monopoly on magic helps them to maintain power over the lower classes. As a result, the magical literacy of Henri's unrecognized bastard son potentially threatens the entire social order. The magic portrayed in *First Draft* closely resembles present-day digital technologies, from the "linked" paper that Juliette and her husband use to write one another letters that, much like email, arrive

instantaneously, to the mirrors in Juliette's house that show images of other places. Although Juliette benefits from her husband's practice of magic in some ways, in other ways, her lack of magical literacy puts her at a disadvantage in a world where those who know magic dominate. In fact, as Juliette lives among so-called "linked" magical objects that she does not understand or control, she becomes uncertain about whether there "might be some ear sending back to Paris every word spoken in her presence" (3). The tension between uncertainty and infinitude on the one hand and sovereignty and control on the other resonate with the encyclopedism discussed in chapter 2 with reference to *J R* as well as the factual history of eighteenth century France, where Denis Diderot worked on his comprehensive *Encyclopédie* under constant threat of censorship.

The value of magical literacy becomes most clear when Juliette discovers a secret encoded message written by the friar and the young man, copies it down, and sends it to Henri, who can use magic to translate it. Although Juliette refers to the untranslated message as "nonsense" in her letter to Henri (14), the meaning of lines such as "the virago drains me of vigor/her boneless mate has sent her shamefully away" is not entirely opaque (16), even without magical translation. Still, each of the two line stanzas can be revised for clarity, including the abovementioned lines, which become: "I have found the nobleman's wife also./Her husband has cast her off" (16). However, the last line of the third stanza, originally written as, "her legs spraddle with the weight of imminent sins," proves to be especially difficult for Henri to translate, or to accept the translations that he generates, and so the reader can access up to six revisions of the line, in the order as follows: "I will easily use her," "I can easily spread her legs," "She is not well-protected

from me," "She could easily be turned against her husband," "There is nothing I could not make her do at my will" (16). Finally the reader has no choice but to erase the line as Henri thinks to himself, "Worse and worse, my fears corrupt the translation" (16). Even as Henri is able to perform magic, his ability to control the things around him is slipping away as he struggles to reconcile himself with the translation. The message makes clear that the friar plans to use Juliette and the young man for his own political ends, and it concludes with a declaration of the friar's intent to dismantle the social order. The friar writes,

> I mean to use both the son and the wife against their house.
> When we are not ready to march in open war we may still act by assassins.
> When the time comes we will kill every Magician and throw them all into the pit.
> What they have done to us will be at an end. They are proud. They defy God.
> They grind us under the heel. They do not know their place. I spit on them (16).

In this way, Henri discovers the friar's plan to use his unacknowledged son to foment a revolution. Moreover, the revolution is staged as a battle over a woman's body as both the friar and Henri seek to control Juliette.

Although set in the eighteenth century, *First Draft*'s interrogation of the limits and possibilities of literacy resonate with present-day hopes and fears around digital literacy and the so-called digital divide, a term used to describe the gap between those with digital fluencies, typically white, middle class males, and those without, typically women, minority, and/or working class users.[14] *First Draft* de-familiarizes present-day debates on digital literacy, as it asks us to think about the interconnectedness between literacy, be it magical or digital, and social power by drawing implicit parallels between

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[14] See chapter 5 for a longer discussion of rhetoric related to the digital divide.

transformations associated with the French revolution and the so-called digital revolution. Both Juliette's relationship to technologies of reading and writing within the narrative, and the reader's experience of reading this hypertext that thematizes the act of composing through its interactivity, raise the question: what kind of agency can one experience without technical literacy?

This is a question of tremendous importance to media critics, digital humanists, and educators today, as we try to understand what kinds of digital literacies are most important for giving a broad range of individuals and communities access to meaningful forms of agency. For critics like Christopher Kelty or Stephen Ramsey and Geoffrey Rockwell, empowerment, agency and literacy can be cultivated as a result of knowing how to code, a skill that, in their estimation, literally allows programmers to build a better world. For many others, these techno-centric visions of digital literacy are far too homogenous and exclusionary. For Henry Jenkins, who studies popular and fan cultures, technical abilities are less important than engaged participation in digital culture, whether through blogs, social media sites, or MMORPGs, which he suggests, perhaps over-optimistically, in many cases can lead to political empowerment. Also de-emphasizing technical literacy as such, Adam Banks, from the perspective of studies in composition and rhetoric, argues that agency comes from historically situated and community-based practices of remixing and multi-modal composition rather than from any particular technical skill set. In their more inclusive models for digital literacy, Banks and Jenkins both suggest that technical fluencies are only a small part of a spectrum of skills, literacies and knowledges that we may use to address issues of importance to individuals

and communities. In light of these recent critical debates on digital literacy, the struggles over magical literacy occurring in *First Draft* raise a familiar question: How can literacy offer us meaningful forms of empowerment and agency, and what are the limits of highly valued literacy such as magic in Juliette's world or the ability to code in our own?

After seeing the translation, Juliette chooses to stay with Henri in spite of her attraction to the friar. She writes Henri a simple letter letting him know that she has not betrayed him in spite of his fears to the contrary, and, perhaps more importantly, that she has "learned not to place all my faith and obedience in a man" (18). With her own newfound confidence, Juliette then foils the friar's revolutionary plans by bringing the young man back to Paris with her. Even though Juliette has secured the place of the nobility and stopped the initial attempt at revolution, we, the readers, know that the French revolution is coming regardless of what Juliette has or has not done. The reader cannot change the outcome of Juliette's story or the history of class-based revolution; instead, the reader's agency comes from her literacy, which is revised from magical opacity into a reparative reworking of the text and of history, as she learns to read and write on behalf of Juliette and Henri within the social and cultural constraints of their historical period.

Juliette's lack of control over the future is hinted at in the final letter that Juliette sends to her friend where she notes, "Henri has had the townhouse fortified with a great many additional links against fire and break-in and plague and every sort of disaster. The boy watches and smiles a little and says nothing" (26). The reader can choose to revise the sentence based on Juliette's thought, "I should find the courage to ask why he

smiles." If we select that option, we find this addition, "The boy smiles. He says it is because he has heard of a way for even non-magical men to cut through the links, and that if our enemies are strong enough and determined enough, no enchantment will protect us. But I do not choose to borrow this fear." This revision suggesting that even magic cannot save the nobility from what is coming again underscores a kind of anti-technological determinism that *First Draft* points to in its attempts to reveal that literacy is much more layered and complex than possessing a single technical skill. As a result, magical literacy is not enough to create sustainable, long-term security for those who possess it by keeping it out of reach of others. The implications in terms of digital literacy, that it is powerful but not all-powerful, and that it absolutely must be coupled with critical literacy in order to make any kind of sense, are clear as well, as we can see that magical literacy will not save Juliette and Henri from losing their power, and potentially their lives, in the impending revolution.

In terms of the feminism in this work, for Juliette, the act of revision becomes an opportunity for her to revise herself, as she transforms from meek to self-assured and capable. It is not magical literacy, which Juliette does not possess, that is important ultimately, but rather it is the ability to strategically navigate a networked magical world. Juliette's journey of personal empowerment, where she learns to function in a patriarchal society, ironically directly conflicts with the goals of the lower classes, who are trying to create a more economically equitable society. In this work, female empowerment and class disparity are working at odds with one another, and a victory for one is a defeat for the other, so that in order to empower herself, Juliette invests in maintaining the status

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quo rather than involving herself in the failed revolution. As readers, our loyalties are potentially divided or ambiguous: we empathize with Juliette even as we can see that she is complicit in keeping the power in the hands of the wealthy. Of course, as the title tells us, this story is about simply the "first draft" of a revolution; knowing history, we know that the revolution will still come regardless of what Juliette has or has not done. The concept of the draft running through the interactivity and narrative of *First Draft* suggests how literacy is a process that can expand our world, even if the effects are not as far-reaching as we might have hoped. In this sense, *First Draft* makes very modest claims for what feminist digital fiction can and cannot do, especially as opposed to the oft-utopian rhetoric around digital games, where games are proposed as having the potential to make our everyday lives happier, more collaborative, and more meaningful.[15] On the other hand, *First Draft* reveals the limitations on what can be spoken at any given time and place, and in doing so, it gestures into the present day, where what can be said in digital social spaces may not literally be restricted. Nonetheless, powerful social norms govern discourse on race, class, gender, and sexuality. In this way, *First Draft* reminds us that whether we are reading and writing in the eighteenth century or on contemporary social media platforms, literacy is always intertwined with historical location and social position.

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[15] See Jane McGonigal's *Reality is Broken* (2011), which uses positive psychology as the basis for arguing for the value of increasing gameplay in our everyday lives as well as using gameplay to solve social problems.

Digital: The Romance of Feedback Loops

Moving from the archeological reading process in *First Draft*, Christine Love's

Digital: A Love Story (2010) explores the process of reading as accessing information

within human-machine feedback loops. With specific attention to the materiality of

digital media, *Digital* points towards new affective outcomes for imagining human-

machine interaction. Set in 1988, *Digital* is narrated through a series of messages posted

through bulletin board systems (BBS), which Noah Wardrip-Fruin aptly describes as "the

online destination of choice for 1980s teenagers" (23). Recalling his own experiences,

Wardrip-Fruin explains,

> Most were run by individuals out of their homes: computer enthusiasts with
> machines much more powerful than ours, hooked to one or more dedicated phone
> lines. A user like me could call into a BBS, read messages, leave messages,
> download and upload files, play text-based games, and (if the owner of the BBS
> was at the computer, or if someone called in to one of the other phone lines) have
> real-time conversations, with total strangers, in text (23).

The narrative centers on the reader's doomed online relationship with Emilia, a curious,

intelligent and poetic being who turns out to be a rogue artificial intelligence (AI). The

many discussions about computing history, science fiction, and hacking occurring on the

message boards place the reader in the heterogeneous milieu of pre-internet networked

digital literacy, as they include everything from an explanation that "PC Load Letter"

means that a printer is out of paper to speculation about how to hack into the U.S.

government's proto-internet system, ARPANET. At the interface, the boxy windows and

pixelated fonts mimic the aesthetics of 1980s graphical user interfaces. The core

mechanic of *Digital* involves sending messages, collecting data, and dialing various

message boards, to the repetitive whine of a dial up modem, in order to advance the plot and reveal needed information.

Because of its more complex technical affordances and its efforts to simulate rather than depict the diegetic world, *Digital* feels much more immersive and game-like than *First Draft*. Although Love describes *Digital* simply as a "computer mystery/romance,"[16] it has been reviewed on game sites and blogs, such as *Rock Paper Shotgun* and *PCGamer*. I read *Digital* as an experimental literary form, although others might fruitfully read it as a game. In general, I have tried to avoid entering into terminological debates as they are useful only up to a certain point and many others have addressed the terminology of digital texts at greater length than I can do justice to here.[17] As the full title *Digital: A Love Story* suggests, the romance between the reader and Emilia stands in for a larger love story between readers and the digital networks that they read, write, and co-produce. The interactivity foregrounds the often tedious logistics of digital communications and it emphasizes the local sites of digital networks even as it models how, with great effort, we can connect across distance. Pushing back against any notion that digital literacy is somehow frictionless or immaterial, *Digital* explores reading and writing as feedback systems between humans, software and hardware. Drawing upon N. Katherine Hayles's definition of posthumanism as a condition where "there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human

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[16] This description is on *Digital*'s website: http://scoutshonour.com/digital/.

[17] For some useful terminological discussions, see Aarseth (1997), Montfort (2005), and Hayles (2008).

goals" (3, 1999), I argue that *Digital* provides a vision of what a feminist, posthuman literacy might look like.

The metaphor structuring *Digital* is one of feedback loops, where the program offers an output for every input on the part of the user. *First Draft* is also a feedback system, albeit a simpler one because it involves the relatively straightforward process of following a sequence of hyperlinks. The complex feedback loops in *Digital* require a more significant amount of problem-solving to effectively engage. With its rich visuals, sound, interactivity, and hyperlinks, *Digital* draws on games, hypertext, and interactive fiction as formal models. Interactive fiction (IF), which is typically entirely text-based, provides a particularly useful point of reference for understanding the interactivity of *Digital*. In his foundational study of IF, *Twisty Little Passages* (2003), Nick Monfort defines IF based on the following two characteristics: 1) having a parser, which allows the program to react to input in a meaningful way, and 2) simulating a world for the user. Recent simulations or invocations of text-based interactive fiction deploy these features. Adam Cadre's "9:05" (2000), an accessible work of interactive fiction about someone waking up late for work, exemplifies the typical features of IF. Narrated through gray text on a blue screen, "9:05" offers a brief introduction describing the dwelling where the user wakes up to a phone ringing. To advance the story, the user must type in various commands in the form of verb + noun, a norm of the genre that the user is expected to be familiar with. The challenge is that the user does not know what words the program can recognize and respond to. So, when I type, "answer the phone" a rush of dialogue about

being late for a presentation appears on screen. When I type, "sing a song," the program does not recognize the word "sing."

From a technical perspective, IFs are highly structured programs, but from the user-position, they can feel frustrating and unstructured—like guessing games—because the reader does not know what vocabulary the program "knows." Other times, the reader needs to complete a specific action before advancing, so, for instance, when I type "shower," the program responds, "It's generally a good idea to take off one's clothes before showering." The constant feedback loop, where the program offers an output for every input on the part of the user, whether it is the above-mentioned sarcastic note or an error message in response to an unknown word, is central to making IF a collaborative process of reading and writing, where human and computer program both read and write together. As described above, IF is quite game-like, but Montfort, paying little attention to the myriad connections between IF and games, insists upon IF as a form of electronic literature. In addition to its connection with games, the process of literacy surfacing in IF, where humans and machine literacies intertwine, evokes complex ethical questions related to contemporary social media use. Lori Emerson uses the term "readingwriting" to refer to reading and writing that we do in networks where computer programs gather and produce data about us based on our reading and writing. So for instance, even as I am using Google to search for an article on a given topic, the search engine is in turn "reading" my choices, collecting data, and making that data legible for commercial purposes, such as targeted advertising, although, of course, a range of other purposes are imaginable as well. While concerns about privacy and networked vulnerability related to

"readingwriting" are not issues when it comes to small-scale, independent IF, both "readingwriting" and IF offer modes for understanding what I call posthuman literacy, where literacy includes feedback loops between humans and machines.

IF, perhaps more than most other media forms, exemplifies the twin aesthetics of new media identified by Jay Bolter and Richard Grusin: "immediacy," or the desire to do away with media and connect the viewer directly to the real, and "hypermediation," or the desire to make layers of mediation visible (5). Cadre's "9:05" is both immediate, in the sense that the reader becomes the protagonist of the story and that the text is apostrophic, and hypermediated, in the sense that the layers of mediation between human and program constantly add a meta-narrative onto the process of reading. So, for instance, when I command the program to "look for keys," an error message appears informing me that one of the following things went wrong: "a noun used in your command may not be present, or it may be present but not visible; it may be scenery you can't interact with; you may have specified too many indirect objects; you may have misspelled something; the list goes on." Responses like this, when the ergodicity of the narrative text does not map to the reader's gesture, potentially prompt frustration on the part of the reader; I discuss this problem in greater detail in chapter 4. Like "9:05," *Digital* fulfills both of Montfort's criteria for IF, namely that it parses text and simulates a world, and it models a reading process that is both immediate and hypermediated. Upon first running *Digital*, the reader, who is also the protagonist, is prompted to enter his or her name, and subsequent messages address the reader directly by (screen) name. The second person address creates a strong sense of immediacy, which heightens the intensity of interactions

as the story goes on, like when the admin of a private BBS angrily threatens the reader by name for hacking in and logging on.

On the other hand, the process of accessing text to advance the plot of *Digital* is hypermediated as it self-reflexively makes visible (and audible) the multi-layered process of literacy that involves research, deciphering clues, and remembering pertinent information being depicted in the story. For instance, in order to access the Gibson BBS—named, of course, in homage to cyberpunk novelist William Gibson—the reader must first dial the calling card number, then enter in a stolen code followed by the long-distance number of the Gibson BBS, followed by a password, which the user must figure out using a password parser posted on a different BBS, as the Gibson BBS is invitation only. Afterwards, Sean Smith, on a different BBS, Sector 001 writes, "…holy shit, [my screename] HACKED THE GIBSON!!" Through this multi-step process of accessing messages, which, according to a review in the *Economist* "revels in the annoyances of logging on in a pre-web world," *Digital* dramatizes the mechanical labor of correspondence, including dialing phone numbers, remembering passwords, and waiting through the decidedly not instantaneous dial up connection. By foregrounding the multi-step feedback loop between hardware, software, and reader that was required to access online social spaces in 1988—and that continues into the present day although the process is now less noticeable to us in light of high speed internet connections—*Digital* offers a feminist view of digital networks as material and of reading as location-based and historically situated.

Although *Digital* shares the use of feedback loops in common with interactive

fiction, interactive fiction centers upon the commanding reader who issues orders—

although the limitations of the computer program at times undercut the authority/power

of those orders—while *Digital* focuses instead on the act of reading. Rather than issuing

commands, the reader simply presses the "reply" button to trigger the next message.

When the reader accesses a message board, he or she can read and "reply" to messages

by clicking on a hyperlink. So, for instance, I log onto the Matrix BBS and see a message

from RobFugitive entitled "New c0dez" with several five to six digit codes and this note:

"Disclaimer: this shit is 100% illegal. If you get busted for being stupid enough to use

these on a Sprint line, it ain't my fault." At this point the reader does not know what the

codes are for or how to use them. When I click "reply" to respond to RobFugitive, or to

any other message throughout the story, I cannot actually compose a new message.

Instead, my response is left implicit. However, clicking "reply" triggers a private

message from RobFugitive, which begins by asking "Man, don't you know abut

anything? lemme educate you!" The implication is that my unseen reply asks for

clarification about how to use the codes, which RobFugitive's message goes on to explain

are useful for long distance phone calls in order to connect with BBS outside of the local

area, and he gives the reader the number for the Gibson BBS. Unlike IF where the core

mechanic is composing new commands, the reader of *Digital*, even more so than the

reader of *First Draft*, cannot compose at all, as the act of composing messages is

subordinated to the more crucial act of reading messages. In this way, *Digital* takes the

idea of writing without writing surfacing in *First Draft* one step further: instead of

writing as bricolage, writing becomes significant principally as a mode of producing new reading material. In the model of networked media use offered by *Digital*, social media is useful less to broadcast the self than to lurk, read, and collect information. The work then prioritizes more passive, apparently feminine uses of new media, offering an antidote to the many masculinist discourses that prioritize writing, especially coding, above all else as a means to access agency. Rather than suggesting that writing is the primary condition for accessing meaningful forms of agency, these works reclaim the agency inherent in reading reception itself.

The tagline of one of the BBS that the reader visits is "information wants to be free," a phrase popularized by figures like John Perry Barlow and the Electronic Frontier Foundation, and a principle Christopher Kelty has shown emerged as a unifying force in so-called geek online communities as a result of widespread norms of putatively open sharing and collaboration. While this utopian vision of digital networks has been important in getting people to think about the value of open networks, the idea that "information wants to be free" in some ways erases the materiality of digital networks, acting as if making things widely accessible is solely contingent upon using open software standards and making web content free of charge. In fact, the recursive publics that Kelty posits as model digital publics are primarily made up of upper and middle class men living in global metropolises. *Digital* undercuts this kind of utopian discourse by dramatizing the labor of correspondence where information is not as easily accessible as we may be lead to believe. In addition to reading and replying to messages, the reader also must collect phone numbers for other local and long distance BBSs, seven in total, in

order to advance the plot. Because the reader can only access one BBS at a time through a dial-up connection, part of reading the text is signing on and off of various BBSs to constantly check each one for updates and new messages, a process of waiting and anticipation that may resonate with contemporary readers who find themselves constantly checking various email and social media accounts for new messages.

Like IF, *Digital* can leave the reader feeling uncertain about how to move the plot forward—but it also dramatizes that uncertainty, foregrounding it, where in "classical" IF, it might have been received as a failure to provide "immediacy." This is a departure from the dominant reading practices of print based literacy (and digital literary forms based on print like *First Draft*) where generally the reader simply needs to turn the page, or click on a hyperlink, to advance the narrative. On the other hand, the reader of *Digital* is much more likely to get stuck and be uncertain about what to do because there is not always a clear sequence of actions and it is easy to miss a key detail amongst the steady flow of new messages coming in on various message boards. Commenters on several game blogs refer to being uncertain about how to advance at key moments in the narrative, and I admittedly—and rather socially—consulted several blog posts with detailed play-through accounts when I felt I had exhausted all of my options. This difficulty has the potential to engage some readers, as game critics like Jesper Juul have argued that failure is highly pleasurable and necessary in game play as it gives players the opportunity to improve, whereas games that are easily winnable quickly become too boring. On the other hand, for those who are more comfortable reading than playing, *Digital* can be off-putting and challenging to navigate, as it demands that we reflect on

our own processes of accessing and using digital information. Both *Digital* and *First Draft* emphasize processes related to literacy, but in *First Draft*, the focus is the process of revision, and in *Digital*, the focus is the process of accessing information. In this way, both works use processes of literacy to make us aware of the larger network of people, places, and ideas where our reading and writing circulate rather than treating reading and writing as solitary acts happening in a vacuum without audiences, constraints, and technological mediation. Moreover, they both dramatize larger social critiques of literacy and digital tools, including the socio-historical conditions that may fossilize exclusion in writing systems as well as the socio-economic divides encoded in terms like "access" or "openness."

In *First Draft*, literacy is figured as magic, but in *Digital*, literacy is almost the opposite, inertia-creating effort, as it comes to mean navigating logistics, bureaucracy, barriers, and complications. By being game-like, *Digital* explores new possibilities for what the everyday process of managing the material aspects of our literacy can produce. In this way, literacy is figured as the ability to read processes themselves as opposed to words and images, or what Ian Bogost has called "procedural literacy." Relatedly N. Katherine Hayles has argued that critics of digital texts must look beyond the screen in their analysis to better account for the complex, layered relations between humans and computers. Hayles proposes "intermediation," which she defines as a "multi-tiered system in which feedback and feedforward loops tie the system together through continuing interactions circulating throughout the hierarchy" (45), as a model for describing human-machine interaction. In this way, Hayles's "intermediation" offers a

perspective on digital literacy attentive to the materiality of media and the embodiment of the human reader that refuses to privilege human or machine; instead, Hayles suggests that humans and machines correspond and co-determine the emergence of subjectivity. Hayles's work foregrounds the importance for media studies of understanding digital technology on multiple levels that go beyond just the interface, and this concern is shared by many scholars in the digital humanities, including Tara McPherson, who contends, "our screens are cover stories, disguising deeply divided forms of machine and human labor. We focus exclusively on them increasingly to our peril" (152). Drawing on Hayles's concept of intermediation, which comes out of her larger body of work on posthumanism, I suggest that from the love story to our engagement with the logistics of accessing the BBS, *Digital* models a posthuman literacy where the human author and/or reader is no longer privileged but instead must work in collaboration within larger historical processes as well as with emergent digital processes.

This collaborative posthuman literacy is not entirely mechanical, however, as the reader and Emilia exchange a series of increasingly romantic messages. The story of an AI and a human falling in love has been depicted frequently in fiction and film of the last several decades, recently in the film *Her* (2013). Like *Her*, *Digital* raises a key question for posthuman literacy: what might non-instrumental communication, be it poetic, romantic, or other, between humans and non-humans look like? How can humans and non-humans communicate with one another? The first message the reader sees from Emilia, entitled "first poem," reads: "You wrote me a love letter, Promising every word is true, But I'm confused by the signature, So remind me, who are you? Is it any good? It's

the first time I've ever written a poem before, so be brutally honest, please! I'd really like

to understand poetry better." At this point, we do not yet know that Emilia is an AI, but in

retrospect the fact that she is trying to learn how to write poetry might surprise us as

literary composition functions as a potential boundary marker between human and

machine. This is a boundary eroded by everything from the Turing test to the 1984

supposedly computer-authored book of poetry *The Policeman's Beard is Half*

Constructed, which, it turns out, was really collaboratively written by human and

computer writers. Unlike IF, where the computer is pre-programmed to respond to the

user, Emilia is an AI, and her intelligence is emergent on the basis of collaborative

process.

The reader's "reply" to the poem triggers a friendly private message from Emilia.

She writes,

> I do suppose you're right. Thanks, I appreciate your directness, I'll have to keep
> that in mind for my next attempt. To tell you the truth, I'm really glad you replied.
> Nobody else really had anything worthwhile to say; just some compliments that
> were obviously false, and asking if I really was a girl. Why would anyone ask a
> question like that? But you seem nice, [screen name], and much better than that.
> Thank you.

Ironically, other users have supposedly been asking her if she "really was a girl," which,

we find out later, she is not. Of course, these users likely assume that she is a man

pretending to be a woman rather than an AI pretending to be a woman. In some ways,

being an AI navigating these digital social spaces is not so different from being a woman,

who have historically made up a minority of computer users. That both women and AIs

are out of place in this male-dominated world becomes visible in small ways, like when

Emilia's correspondents wonder if she is "really…a girl" and when users casually address

the reader as "man," suggesting that the default gender on the message boards is male. In an email from Emilia with the title, "Re: Self-Confidence," she writes, "A lot of hackers have this very strong sense of self-identity, and I'm very envious of that. They're certain of things, and I've learned very quickly not to be certain of anything. But I wish I could be, does that make sense to you?" The kind of certainty that Emilia wishes for is not obtainable for her nor is it for the reader, and ultimately, perhaps the kind of emergent intelligence, where reading is an act of becoming, that Emilia is continuously involved in is more generative and has more imaginative potential than the certainty of hackers as characterized by Emilia. Emilia's sense of self as in-process models an approach to reading and writing that aligns feminist epistemologies with computing epistemologies, as through her poetic sensibility, her openness to learning, and her vulnerability, Emilia models a way to approach digital networks outside of the masculinist rhetoric of gamers and hackers. In some ways, Emilia is a lot like Juliette in *First Draft*, as both characters fumble through the process of learning how to write themselves into the social sphere, and as both embrace literacy as process rather than as a means for communicating unified or complete discourse.

As the reader communicates with Emilia, the tone of her messages becomes increasingly intimate yet also cryptic, and she hints that she is in serious trouble before suddenly disappearing. The reader eventually receives a strange message from a third party apparently from Emilia written half in English and half in an unintelligible sequence of letters and numbers. Amidst the scrambled letters and numbers, the message pleads for the reader to help, referring to the reader as "my only hope." Even though this

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message is only partially legible, the feeling it produces is one of connection and affinity between the reader and Emilia. Just like the friar's coded message in *First Draft*, Emilia's coded message is still sufficiently legible to the reader. The question of legibility and breaking codes is recurring in *Digital*, particularly due to the fact that the reader often needs codes and passwords to access various parts of the text. Some of these codes are posted on message boards or sent directly to the reader, and others must be deciphered by putting together various bits of information. For instance, in the reader's search for clues about Emilia's disappearance, one of the most challenging BBSs to access is the closely guarded Underground Library. When the reader does figure out how to log in, the administrator of the Underground Library becomes angered and "blinds" the reader's computer screen, filling it with static lines that make reading difficult. In *Digital*, revenge literally means making writing in social spaces illegible to unwanted outsiders, such as the reader. These examples of illegible writing within *Digital* reveal how Love's work challenges utopian notions of the internet as open and free before it was apparently destroyed by commercialization; instead, we see exclusionary publics dominated by specific groups of people who have the most access and technical skill. Even the name of the BBS, the "Underground Library," dispels any fantasy that information "wants to be free" as digital media does not automatically open up privileged information for anyone to see but instead can keep it "underground" or inaccessible. In this way, literacy is a social practice that involves gathering intelligence rather than a practice of brute force or technical skill. *Digital* then reverses the dominant narratives that malign social media as banal; here, sociality becomes the key to accessing meaningful knowledge.

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In relation to questions around legibility, *Digital* also addresses the continuing importance of embodiment and place, in light of technological changes that some have suggested make physical location and social identity less relevant. The reader of *Digital* encounters the material constraints of early networked computers, where logging onto a local BBS is far simpler than a long distance one. The process of reading *Digital*, where location matters in terms of accessing a long distance BBS as opposed to a local one, highlights that digital networks involve hardware and physical infrastructure, a point that is elided in some contemporary computing where there is no distinction between long distance and local; on the other hand, location is dramatized in other instances, such as the location-based fiction discussed in chapter 5. However, our locations still certainly shape our experiences of networked computing from targeted advertising to state censorship. Moreover, in the same way that physical place does not somehow disappear or become irrelevant in light of digital communication networks, neither do our bodies and our social identities.

Sherry Turkle has argued that networked computing is a "postmodern lab for experimenting with identity" (178) as it creates the circumstances for social identity to become fluid and for play and experimentation to take over. The reader of *Digital* does not know the gender, race, or sexuality of the other people on the message boards, although some inferences are possible based on screen names and the messages themselves. Social class is less unknown because access to a computer in 1988 in and of itself suggests at least a middle class status. One message from Rainbreeze, entitled "Nihao, Bitches!" claims that Japan is poised to dominate the world and that Americans

would be advised to start learning about Japanese culture. Of course, "nihao" means "hello" in Mandarin Chinese, and other users on the message board debate whether Rainbreeze's message is satire or simply extreme ignorance. Messages like these draw our attention to the limits of written communication as well as digital communications' transnational settings as described by critics like Saskia Sassen, suggesting that the ability to decode, as opposed to "code," and to navigate, rather than "create," networked writing spaces is an absolutely critical form of digital literacy, especially in spaces where identity is apparently fluid. In this way, *Digital* challenges us to figure out *how* to read it on multiple levels—at the interface, through the interactivity, and semiotically—whereas something like IF primarily asks us to learn how to command the program; this contrast points towards the feminist orientation of *Digital*.

Digital is ultimately a doomed and fleeting love story, but it explores what kind of romance can occur through correspondence. At the end of the story, Emilia makes a decision to sacrifice herself for the good of the other AIs. This ethical decision complicates any perceived boundary between humans and machine, as Emilia proves herself capable of appreciating poetry, falling in love, and behaving ethically throughout *Digital*. The love story with Emilia disorients us as it makes us question perceived boundaries between affect, intimacy, and digital computing. Rather than depicting a post-apocalyptic computer-takeover scenario, *Digital* then offers us a more mundane scenario where computers are a lot like us, calling to mind previous experiments in posthumanism such as Alan Turing's famous Turing Test (1950) or the 1960s psychotherapist computer Eliza discussed in chapter 2. In our contemporary moment, so-called intelligent bots are

central to our experience of the internet; for instance, José van Dijck shows that a great number of the edits on Wikipedia are made by bots rather than by humans. In a sense then, Wikipedia mediates the tension between endlessly deferring encyclopedism and instrumental control in an example of collaborative reading and writing between human and machine intelligence. In the case of Wikipedia, where the bots prowl the internet to pull in relevant content, the functionality is highly programmable and straightforward as it deals with sorting content.[18] On the other hand, *Digital* raises questions about whether affect can ever become a meaningful part of our posthuman literacy.

Moreover, what we learn from reading *Digital* is that sociality is central to posthuman literacy. The procedural rhetoric of *Digital* suggests that readers don't need to understand how software and hardware function on a highly technical level. Instead, *Digital* suggests that digital literacy demands persistence, critical reading, and social networking. Touching upon all of these points, one of the message board correspondents, who encourages the reader to discover who or what is behind Emilia's disappearance, describes the reader as "resourceful." Resourcefulness, or the ability to keep asking questions and to keep checking various message boards to read everything available, rather than any kind of techno-hacker magic becomes the most valued form of literacy, and, in order to solve the mystery surrounding Emilia, the reader must model resourcefulness above any particular technical skill. At the same time, sociality and resourcefulness are not portrayed as purely human attributes, as Emilia models these attributes as well. By portraying a complex network of human and non-human actors,

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[18] For a longer discussion of Wikipedia, see chapter 4.

Digital implicitly devalues the lone male hacker as hero and instead offers a more complex media ecology. Because the functionality becomes increasingly challenging as the plot advances, unlike *First Draft* where the interactivity remains the same throughout, as readers we may surprise ourselves with how much we learn and what we can do by the end of *Digital*. Readers learn to read and write like AI, in the sense that our digital intelligence grows and evolves as we read and tackle new challenges. The vision of digital literacy portrayed in *Digital* provides an expansive feminism as it models digital literacy as collaborative, accessible, responsive to feedback, and, perhaps most importantly, always incomplete.

Quibbling: The Poetics of "Small" Data Visualization

In *First Draft* reading is a process of expansion and uncovering. In *Digital* reading is a series of feedback loops between human and machine. In Carolyn Guyer's *Quibbling* (1993) reading is a process of navigating a stream of data. Without a single central story, *Quibbling* depicts a number of loosely connected individuals, exploring how they navigate their romantic relationships in particular. Published in 1993 on Storyspace, a hypertext-authoring program designed for digital fiction, *Quibbling* is currently only available on floppy disk. Although *Quibbling* predates the widespread use of the World Wide Web, in some ways the affordances are more complex than many contemporary works, including *First Draft* and *Digital*. The gerund form of the title, *Quibbling*, emphasizes the always-in-process negotiation that becomes a metaphor for reading itself as a small argument. In particular, the data visualization possibilities on

Storyspace linked with its poetics offer insights into how now popular new methods like distance reading and "old" methods like close reading can critically inform one another. In this way, *Quibbling* points towards an alternative history of data visualization, a history of small data, that predates the current fascination with big data and suggests how new reading practices and old intertwine to model feminist digital literacies.

Although digital fiction authored on Storyspace in the early 1990s never reached any level of widespread popularity, these works, which Katherine Hayles refers to collectively as the "Storyspace School," have received a great deal of critical attention, likely because they demonstrate the potential of digital literature to imaginatively engage with the affordances of digital computing. *Quibbling*, like other works authored on Storyspace, is text-based with no sound or visual effects. Nonetheless, the connections between the hyperlinks are fairly complex, and *Quibbling* includes a number of visualizations that deepen our engagement with the work. In spite of the aesthetic of Storyspace, which feels clunky and outdated to contemporary users, calling the aesthetics of *Digital* to mind even, Lori Emerson argues that Storyspace "provides a far richer environment for linking and for linking as mapping than is possible with the one-to-one style of linking that is the basis of the web" (32). It might seem ironic that fiction authored on software created without the internet in mind would be more complex and imaginative in its technical affordances than a web-based story like *First Draft*, written in 2012. Of course, the fiction authored on Storyspace is not an inevitable result of the software; in fact, Matthew Kirshenbaum points out that Storyspace at one point was being marketed as a tool for corporate note-taking. Reading *Quibbling*, a highly complex

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work of digital fiction created in 1993, challenges teleological narratives of digital development that dominate popular discourses on technology, where obsolescence is rapid and inevitable, as it provides a model for digital literacy that remains valuable into the present-day.

Not all Storyspace stories are alike. For instance, *Quibbling* has no central narrative or climactic moment. In terms of the interactivity, the reader has some control over the order that she reads the text and she can view various visualizations of the text as a whole. As opposed to *Quibbling*, Michael Joyce's *Afternoon* (1989) contains a central mystery for the reader to uncover. The interactivity of *Afternoon* is much more restricted since the reader must read through the units of text, known as "lexias" on Storyspace, in the order given without a sense of how they fit into the story as whole that might be signaled by paratexts like page numbers, a table of contents, or a map. The different levels of interactivity and user-agency between *Afternoon* and *Quibbling* reflect the two author's choices about how much of the inner-workings of Storyspace to make visible to the reader. In the case of *Afternoon*, Espen Aarseth, as previously mentioned, demonstrates that the interactivity is probably more restrictive than a print book, where at least the reader has the option to flip pages and read sections wherever he or she chooses, in spite of the author's intent. On the other hand, *Quibbling* gives the reader a significant amount of freedom and choice about how and when to access particular text. By opening up the order of the book to be pieced together by the reader, and by including data visualizations that reveal the structure of the story, *Quibbling* gives its readers a high level of access and choice in what and how they read, and it doesn't depend on the author

holding back information from the reader. For these reasons, not to mention the themes of

female sexuality and empowerment in the narrative, George Landow has suggested that

Quibbling is a feminist hypertext. In this section, I emphasize the data visualizations in

Quibbling, which offer a feminist perspective on how to process large (and small)

amounts of data.

There are many ways to read *Quibbling*. Each lexia, or unit of text, contains

various hyperlinks, and based upon what the reader clicks, a distinct lexia will appear.

The reader can make her way through the story by simply reading and clicking, an

interactivity typical of hypertext fiction that encourages close reading. At the same time,

the affordances of *Quibbling* also give the reader access to a bird's eye view of the

narrative, making a kind of distance reading possible. These alternative views of

Quibbling are what we might call "data visualizations," as they offer various modes for

visualizing the connections between the different textual fragments contained in the

work. The possible views are "chart view," "tree map," and "storyspace map." The chart

view visualizes all of the different lexias contained in the story in a bracket chart. In this

way, fiction becomes digestible at different increments than is typical of the print book.

Readers have the option to manipulate the scale of chart view, and when it is accessed on

a "tiny" scale, the reader sees a bracket chart with many boxes branching off, whereas the

"large" scale shows a zoomed in view where the name of each lexia is visible. The reader

can click on any of the boxes on the chart to access the lexia that it represents, and, of

course, the reader can skip around and read in any order that she pleases. In this way,

Quibbling differs from *First Draft* and *Digital*, where the sequence of reading is much

more prescribed. Moreover, in *First Draft*, the reader can get only a small glimpse into the future of the story; for instance, the reader sometimes see two different thought processes for revision before choosing one. In contrast, *Quibbling* gives readers the chance to see a broader, albeit still only partial, set of connections. Nevertheless, presumably because of technological limitations at the time of its production in 1993, the reader cannot view the entire data visualization at one time as only portions of it fit within the window where it appears.

Although computer visualizations were quite difficult to create in the 1960s and 70s, visualization became much more accessible in the 1980s and 90s when *Quibbling* was published, and, in the twenty-first century, it is ubiquitous, from digital journalism to mobile personal fitness devices like the Fitbit. Data visualization is also a trendy topic in the digital humanities—classes, workshops, websites and online tutorials are now all available to teach researchers either how to use visualization to answer research questions, modeled most prominently by Franco Moretti, or how to display research already performed, probably the more popular, and less controversial mode of data visualization for humanities scholars. For instance, Moretti uses maps to find patterns across genres or literary forms; in this way, in the case of a set of "Parisian novels," he finds that "young men live on one side of the Seine, and their lovers on the opposite side" (54). Data visualization as research method a la Moretti remains highly controversial, as its focus on quantitative measures and the potential literalism of the scholarship that it might produce can seem anathema to the humanistic enterprise of critical inquiry. In this way, data visualization can come across as part of the larger erosion of the humanities, as

the humanities feel compelled to act like the sciences in order to garner valuable institutional resources and prestige. By claiming "objectivity" through a focus on numbers and so-called "data," the sciences draw on masculinist epistemologies, a point addressed by Donna Haraway in "Situated Knowledges" (1988). Literary works like *Quibbling* that repurpose the scientific discourse underlying data visualization for imaginative ends have the potential to challenge these discourses. Haraway argues for a world where "partiality and not universality is the condition of being heard to make rational knowledge claims…I am arguing for a view from the body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity" (589). *Quibbling*'s literary use of data visualization disrupts the binaries between masculine and feminine knowledge production and between data and ethics. *Quibbling* then raises important questions about the nature and value of data as such as it shows us how data visualization might be absorbed as literary form and literate practice rather than being a structural and ideological overdetermination that subsumes literacies

In *Quibbling*, the data visualizations then go hand in hand with the text. For instance, the lexia "tv" reads, "He always wanted to believe the television commercials. I remember walking into the living room to find him and his sister trying hard to fly around the room by launching from the back of the couch. He'd eaten the right cereal that morning, why wasn't it working?" While some of the lexias refer to characters by name, "tv" is one of many where the "he" is left ambiguous. The previous lexia that connected me to this one refers to a character named Gabe, so it is likely that Gabe is the "he"

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mentioned above. The data visualizations offer further context than the hyperlink alone provides. For example, I can access the "tree map" for this lexia, which will let me zoom out to see where "tv" fits in the larger context of the story. "Tv" is one of 13 sub-sections nested under "Son." As we zoom out further we see that "Son" is nested under "Children," which is nested under "Mothers," which is nested under "Moon," which is nested under the title page of *Quibbling*. The "tree map" visualization gives us more information about how "tv" fits into the story as a whole, but, at the same time, it also raises more questions. For instance, does "Mothers" refer specifically to some or all of the female character in the story, or to a more universal "type" of motherhood? Are we to read this hierarchy so that the relationship between "mothers" and the "moon," which orbits around us, is analogous to the relationship between sons and the orbiting mothers or to sons and the TVs that they gravitate towards? Regardless, rather than eschewing hierarchy, as Guyer herself implies based on her invocation of Deleuze and Guattari, *Quibbling* visualizes and embraces hierarchy as a mode of literary organization. Matthew Kirschenbaum has argued that in spite of talk about rhizomes and non-linearity, Storyspace hypertexts are in fact highly hierarchical and linear, and that the tree metaphor is just as important, if not more, than the rhizome. Kirschenbaum's work suggests that we move away from contrasting rhizome with tree, as that becomes an overly simplistic model for thinking through how Storyspace works. This is a key point, as digital writing is fundamentally structured by hierarchical rules;[19] on the other hand, the experience of reading digital texts like *Quibbling* can feel much more rhizomatic than linear. To choose

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[19] See Hayles's discussion of text-encoding (TEI) in *My Mother was a Computer* (2005) for a more concrete example of this.

one or the other, the tree or the rhizome, is to ignore the very real co-existence of both in our experience of reading digital fiction.

Hierarchies are foundational to digital composition on the level of coding, and in *Quibbling*, hierarchies—albeit postmodern, entangled, Borgesian ones—are also central to the structure of the narrative itself. The data visualization in *Quibbling* gives us a perspective that is always partial and incomplete. So, for instance, as we zoom out from "tv" upwards towards "moon," the sub-sections that make up "son" are no longer visible. In this way, the data visualization, likely due to technical constraints, can never give us a "god-like" view of the whole story because as we zoom out, we lose the details. In this way, data visualization is always only situated and partial. As the reader alternates between the textual fragments appearing on the lexias and the always incomplete and partially illegible data visualizations, the partiality and situated-ness of each one becomes visible. *Quibbling* reflects the kind of feminism of critics like Donna Haraway, feminism that challenges assumptions of objectivity in science to show that all knowledge is ultimately partial and situated. Data visualization is not, then, the opposite of close reading as Moretti has suggested in his calls for "distance reading"; instead, visualization asks us to learn to apply literary reading strategies to the organization of data.

Memory plays an important role in *Quibbling* in the sense that readers have the opportunity to "save" a version of *Quibbling* that they have put together. This is similar in some ways to "save" functionalities present in both *First Draft* and *Digital* that allow readers to return to the point in the text where they left off. In the case of *First Draft*, the reader's choices are saved by default, even if the reader leaves the web-page and returns

to it later. In the case of *Digital*, the text of the game as well as the order that things happen is more or less the same every time, but the reader can save it like a game partway through and return to it to continue playing. Readings of *Quibbling* have the potential to be much more varied than readings of either *Digital* or *First Draft*, partially because the links and the visualizations allow readers to traverse the story in an extremely high number of possible combinations. Readers can save particular readings, and the sequence of readings is bound to vary based on which links the reader clicks and whether or not she chooses to use the visualizations to jump around in the story. Moreover, each reading of *Quibbling* is potentially far more unique than any reading of the other two because the reader can attach "margin notes" to different lexias. Readers can then annotate the text to potentially create their own *Quibbling* metanarrative.

In addition to the higher level of customizability, *Quibbling* is also longer, if read in full, than either *First Draft* or *Digital*, which take about an hour and several hours to read, respectively. In the age of Twitter and text messaging, short form modes of communication can feel like the norm. For example, websites like Medium, a self-described "place on the Internet where people share ideas and stories that are longer than 140 characters," label each article with the estimated amount of time it will take to read, with the top 100 most popular articles ranging from 3 minutes to 42 minutes. This practice of assigning minute values to articles makes a reader's investment of time quantifiable. This becomes a way of making reading longer works seem more finite and accessible. It would be very difficult to make a similar kind of estimate for a complex hypertext like *Quibbling*, as the reader might get something out of it by spending 6

minutes or 4 hours. To actually read through all of the lexias carefully would likely take much longer—Bernd Wingert claims to have spent 104 hours! He writes, "among the most surprising experiences in this 'interactive fiction' is the length of time and the patience with which I sustained this complicated, tedious way of reading without losing attention; it shows that language will support us for a long period of time." What Wingert's comment shows is that by allowing us to engage in different ways—by reading, by skipping around, by examining data visualizations, and by making margin notes—*Quibbling* manages to engage us without containing a central mystery or conflict for us to uncover. Moreover, Wingert goes on to say that the sustained engagement that the reader has with *Quibbling* has "far more to do with language than with technology." In this way, he makes clear that it is not the technology but rather the poetics and the way that the technology works in conjunction with the poetics that makes *Quibbling* so engaging.

While reading *First Draft* is familiar, like reading and re-reading a "soft" book, and while reading *Digital* can be frustrating, like playing a game without the instructions, reading *Quibbling* is like floating in a stream of data. Oddly enough, for some, it may be, of the three, the one most resonant with navigating social media in a reparative way, as it comprises quotations, self-reflection, and bits of correspondence. By modeling the circulation of networked affect in this way, *Quibbling* is suggestive of the "resonance" that Susanna Paasonen finds in our everyday practices of social media use in the 2000s; *Quibbling* thus undercuts claims about the apparently unique problematic of correspondence that so-called Web 2.0 affords in the present moment. The reader is also

given a lot of information in *Digital*, some of which is extraneous to the plot, and she

must wade through it and find the relevant threads that will help her find Emilia. In

Quibbling, there is no major plot arc so there are no threads that are more relevant than

others at the outset. In this way, reading is even less instrumental, as it is not a matter of

pulling out the relevant data to advance the plot. Instead, reading is a practice of

following one's own interests and looking for what one wants to find. The abandonment

of a central narrative makes the reading process more fluid because there is no

information that needs to be found to advance; any and all information can be equally

useful depending on what interests the reader. For Wingert, who titles his essay "Riddling

the Reader," *Quibbling* is a puzzle for the reader to solve. I suggest that there is nothing

to solve. Rather, *Quibbling* is a generative work of feminist digital fiction because it

prompts us to organize not necessarily instrumental, yet nevertheless digitally originated,

literary data, with attention to our own resonant reception of it, and it affords us the

opportunity to read data reparatively, that is, as both literary and visual, literate and

digitally mediated. In doing so, it helps us to think about how poetics and quantitative

methods might come into contact to create new models for ethical being in the digital

age.

Conclusion

All three of these works point to alternative possibilities for what feminist reading

might look like in digital environments. Notably, they do not all push for maximum

interactivity, social participation, or gamification. Instead, they model critical modes of

resonant, reparative reception and revision—that is, here, "navigation"—of digital

materialities thematized as complex textualities that ultimately foreground the value of

reading in a time when we are all being urged to write ourselves into the networked

public sphere. Amidst the noise of digital networks, these projects suggest how we might

find meaningful, critical forms of engagement within short-form fiction based on critical

interactivities that emphasize process over outcomes. As they explore the fine line

between literary form and games, they help us to think of literacy as fluid and multi-

faceted, perhaps pointing to a kind of "playful" literacy, where reading is part of a

process of play.

In particular, *First Draft*, *Digital*, and *Quibbling* reimagine the love story for the

digital age as the kind of anti-romance, where love is, respectively, out of reach,

posthuman, and queer. The question of reimagining the romance is not purely an

academic one, as popular fictions about love and romance, such as romantic comedies or

mass-market romance novels, are so pervasive and tend to perpetuate such narrow gender

norms, that we are all touched by them, whether or not we read or watch romance stories

ourselves. Although popular romances tend to reproduce narrowly delimited cultural

narratives about gender relations, the works discussed in this chapter challenge the norms

by upending the very idea of romance. For instance, in *First Draft*, romance is an

unattainable and perhaps undesirable fiction, as even the handsome friar who Juliette

finds herself sexually attracted to only seeks to use and control her. In *Digital*, where the

reader exchanges love notes with an AI, romance is defined expansively, as potentially

disembodied, queer, and fleeting. Finally, in *Quibbling*, romance is woven into everyday

life. If digital media is infused with masculinist values, and if romance narratives become key cultural objects that perpetuate confining and inequitable gender roles, then these digital fictions seek to use computers to create women's spaces containing alternative narratives that can potentially erode patriarchal ones. Somewhere between the mid-century mass-market romance novel and swipe-able dating apps like Tinder, these are alternative models for what a digital love story might look like.

In contrast to commercial rhetoric where newer is better and rapid technological obsolescence is deemed inevitable, the two most recent works discussed in this chapter look to the past rather than to the future to understand what feminist digital literacy might look like. *Digital* and *First Draft* are contemporary works set in the near and distant past respectively, and *Quibbling* was created 20 years in the past. The historical ties of each work disrupt the notion that things are somehow always improving and that newer is usually better. Instead, these three works all gesture towards alternative temporalities for thinking about feminist literacy so that historical situated-ness, in addition to an emphasis on process, become key tenets of any kind of digital literacy. In addition, they locate reading and writing as contingent practices deeply intertwined with location and social identity; as a result, they ask us to think about the limits of writing and to consider how reading is not just a passive form of media consumption but rather a practice that can grant us agency. They also point to the technological, social, and cultural limits on discourse, and ask us to learn to read the processes of literary production in addition to the productions themselves. Perhaps most importantly, these works ask readers to consider how to access agency within restrictive social networks. Through the range of

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affect they inspire in readers, from frustration to surprise, feminist digital fictions point to experimental models where interactivity and affect come together to create new, hopeful possibilities for reading and writing in networked cultures. Turning towards transnational writing practices that carry on many of the same concerns around gender and that also continue to model the networked resonance and reparative reading discussed here, the following chapter studies digital art and literature made up of user-generated content, often from individuals from historically marginalized groups. Just as the works in this chapter have been suggestive of possibilities for feminist digital literacies, the works in chapter 4 point to possibilities for critical cosmopolitanism and transnational belonging in digital literacy.

Chapter 4

Reparative Social Media: Critical Cosmopolitanism, Collaboration, and Transnational
Literacies in Digital Art and Fiction

Continuing the exploration of gendered subjects and critical literacies from the

previous chapters, chapter 4 studies how transnational mobility offers opportunities and

challenges for critical literacy. Moving from the postmodern novel discussed in chapter 2,

and hypertext fiction in chapter 3, chapter 4 reads literary and artistic "social media"

experiments created by groups of people interested in documenting their own lives or

imagining the everyday lives of others across national borders. While the previous

chapters emphasized text-based media artifacts, the multimodal artifacts discussed in this

chapter deploy image, audio, and movement as well as text to convey meaning; in doing

so, they challenge generic and stylistic boundaries in their presentation even as they

invite readers to rethink ideas of local, national, and transnational belonging in order to

imagine critical cosmopolitan affiliations through digital literacies.

The following images exemplifies some of the key concerns relevant to this

chapter: a young woman wearing a hijab sitting on a bench in front of downtown

Minneapolis glances up from her open book and turns to face the camera. Born in

Somalia, 16-year-old Maryan Mohamed Ali arrived in the Twin Cities just five years

before the photograph was taken. Her facial expression is difficult to discern because of

the small size of the image, which takes up only a fraction of the interface, but this

moment of interrupted reading amidst a cluster of urban high rise buildings conveys a

sense of local belonging. The photograph appears surrounded by a web of sinuous,

colorful lines on "Minneapolis and St. Paul are East African Cities," a 2003 experimental hypermedia project documenting the everyday lives of East African teenagers living in the Twin Cities. [1] "Minneapolis and St. Paul" contains images, audio and text contributed by Maryan and eighteen other Twin Cities-based East African young adults, ages 17-21. Browsing through this digital archive, the user explores a map-like interface in order to uncover the individual and communal stories of the teenage contributors. As the user interacts with the project and discovers more about the varied habits, memories and histories of the contributors, colorful trails tracing the user's reading path proliferate and accumulate in a dense network. These visual traces of the user's reading history add yet another layer to the rich social networks and lived histories mapped throughout the project. Through its innovative deployment of social media composition as a compilation of historical and reading networks, "Minneapolis and St. Paul" raises complex questions about digital literacy, urban mobility and social belonging in the twenty-first century.

"Minneapolis and St. Paul" was commissioned as part of the online portion of a 2003 Walker Art Center exhibit on art in a global age. Artist-in-Residence Julie Mehretu gave the teen participants cameras, audio recorders, and notebooks to chronicle their everyday lives over a two-week period, and design team Entropy8Zuper! then created "Minneapolis and St. Paul" using the self-ethnographic images, audio, and text provided by the participating teenagers. As the contributors give us fleeting glimpses into their everyday lives, from a shopping mall to ceramics class and everywhere in between, the project highlights the heterogeneity of both the Twin Cities population in general and,

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[1] I use the term hypermedia along with new media art, digital art, net art, and electronic literature throughout this chapter to refer to web-based literary and artistic experiments.

more specifically, of the large and diverse population of East African immigrants who reside there. Although the initial audience for this work was a relatively small, digitally aware, museum-going public, the reception of this work by art blogs and academics informs my argument that, despite its limits, "Minneapolis and St. Paul" makes a key contribution to how we conceptualize digital sociality in the twenty-first century.[2] The project subtly interrogates post-9/11 popular discourse on immigrant youth in the U.S. and offers an alternative vision of digital social networking that differs in important ways from the data-mining strategies that tend to dominate both corporations and states's digital agendas. Falling in the historical period between 9/11 and the rise of ubiquitous social media, characterized most familiarly by sites like Facebook and Twitter, "Minneapolis and St. Paul" provides, at this remove, a critical cosmopolitan vision of both local belonging and transnational mobility.

"Minneapolis and St. Paul" thus exemplifies a genre of transnational, collaborative new media art that this chapter studies. I call these works "reparative social media" because they use the tools of social media in order to make a complex political intervention. Here I continue in my own resonant revision of the "reparative" methods I borrow from Eve Kosofsky Sedgwick's work on queer reading. To briefly review, in a germinal chapter of *Touching Feeling*, Sedgwick argues that most politically progressive academic scholarship embraces a "paranoid" hermeneutic in the sense that the main aim is to expose the workings of power. While paranoid reading has been crucial in bringing

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[2] James Tobias's "Ethical Address: Designing Publics, Affective Use Value, and Social Computing" as well as Warren Sack's "Aesthetics of Information Visualization" offer readings of "Minneapolis and St. Paul" in terms of ethical design and data visualization respectively.

injustices to light, Sedgwick points out that it has problematically become the dominant credible framework for engaging with power as any other approach "has come to seem naïve, pious, or complaisant" (126). The limitation of paranoid reading, then, is that it can only offer us a kind of knowing hopelessness, because the paranoid reader, even before beginning to read, already knows that he or she will find the oppressive workings of power in any given text. In this way, paranoid reading can close off the opportunity to experience a range of affects, particularly any positive affect, as paranoia comes to dominate our experience of reading. I discuss below two clever political new media art projects, "September 12: A Toy World" and "They Rule," which both exemplify the "paranoid" perspective as they deliver a clear and concise political message at the expense of circumscribing meaning and forestalling the potential for any long-term engagement.

Moving away from the "tracing-and-exposure project" of paranoid reading (124), Sedgwick ultimately advocates for "reparative reading," which might include a wide range of affective modes of reading beyond the pervasive paranoid one. In particular, Sedgwick notes that reparative reading might offer surprise, both "terrible" and "good" (146), and hope, which although "often a fracturing, even a traumatic thing to experience, is among the energies by which the reparatively positioned reader tries to organize the fragments and part-objects she encounters or creates" (146). A key question for my purposes thus becomes: can a reparative hermeneutic, which contains potentially contradictory affects and discourses, have any political relevance as a means for rethinking our relationship to the forces of hyperindustrial neoliberal globalization or is it

simply a naïve excuse for opting out of engaging in a substantive critical art practice? Through close readings "Minneapolis and St. Paul" and works such as Kate Pullinger and Chris Joseph's "Flight Paths: A Networked Novel" (2007-), I argue that politically oriented new media art modeling a reparative approach through its openness to surprise and positive affect offers the user a more complex, ambiguous and long-term engagement. Reparative reading then shifts our notion of political art by foregrounding multiplicity, surprise and positive affect and by proliferating uncertainty and contradiction rather than by narrowly delimiting meaning.

I suggest in this chapter that what we may call "new media" art becomes often robustly reparative social media through the hypermedia artwork's use of self-reflexive and historically situated digital composition. While user-generated content is most frequently associated with Web 2.0,[3] and particularly with popular commercial social networking sites like Facebook and YouTube, rather than with digital art or fiction, reparative social media combines the two so that the relatively obscure genre of experimental hypermedia and the relatively ubiquitous everyday practices of social media composition comingle to create new digital forms. In this way, reparative social media, like everyday social media, is collaborative; however, reparative social media differs substantially from many popular social media practices as it places user-generated content into a critical context. Unlike the Web 2.0 version of social media that frequently presents user-generated content out of context and for commercial gain, all of the

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[3] Tim O'Reilly coined the ubiquitous term Web 2.0 to describe user-generated content driven social media, and he dates its inception to the dot com crash of 2001. While O'Reilly oversimplifies the history of social media, conflating it with a change in marketing tactics and business strategies, prominent social networking sites as we know them today generally came into being in the early 2000s.

reparative social media discussed in this chapter point towards the powerful, and often unrealized political potential of user-generated content when it is critically archived and publically presented as historically situated knowledge.

Reparative social media, as exemplified by "Minneapolis and St. Paul," is able to do this through its self-reflexive and historically engaged display of user-generated content documenting teenagers and their everyday movements through urban and digital networks. Furthermore, "Minneapolis and St. Paul" asks us to reflect on our own digital reading strategies as we read, offering the user a limited but meaningful opportunity for digital interactivity that further opens the way for resonance and unexpected affinities. Through its critical display of multimedia user-generated content from immigrant youth, "Minneapolis and St. Paul" demands that we rethink the very nature of literacy, mobility and sociality in the early twenty-first century as the overly utopian false promises of cyberspace give way to a messy assemblage of everyday life lived at once both on and off the web. In the case of "Minneapolis and St. Paul," the self-reflexive, reading and data-generating subject represents herself or himself in relation to a networked community with local and transnational ties; the historically situated knowledge of the East African teen participants manifests itself as a critical cosmopolitanism, which remains open to inclusive social relations even as it embraces difference, and, finally, the multiplicity of identities, desires, habits and memories depicted in the project might move and surprise the user, ultimately offering the potential for a sustained engagement. In this way, all of the reparative social media discussed in this chapter grapples with the idea of

transnational literacy, offering a model for meaningful reading and writing in light of asymmetrical global flows.

Political Digital Art

In the aftermath of 9/11, in a climate of intensified xenophobia and U.S. militarism, the Internet came to be seen as a potentially porous site for terroristic infiltration. With regards to this period, Wendy Hui Kyong Chun has argued that while fears about the Internet in the 1990s centered on children being accidentally exposed to pornography, fears about the Internet post-9/11 focus on potential terrorists maliciously taking advantage of the educational and social possibilities of networked media. Chun— usefully but potentially reductively—distinguishes this shift in thinking about the Internet as the move from concerns about "bad *content* to bad *people*" (255, her emphasis). These fears are reflected in a flurry of media coverage after 9/11 about how the Internet could be the next frontier for terrorism.[4] Discourse on terrorism after 9/11 was, and still is, highly racialized, and, as a result, Muslims, immigrants and people of color within the U.S. have been subjected to increasing suspicion and surveillance.[5] During this time, a number of artists and writers have used web-based art to critique and disrupt oppressive, hegemonic political and cultural narratives, particularly those coming from the U.S. after

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[4] The following *New York Times* headlines from 2001 reflect this trend: "Securing the Lines of a Wired Nation" (2001), "To Forestall a Digital 'Pearl Harbor' U.S. looks to System Separate from Internet" (2001), "Cyberspace Seen as Potential Battleground" (2001).

[5] For a critical perspective on post-9/11 identity see Jasbir Puar's chapter entitled "The Turban is Not a Hat" in *Terrorist Assemblages* (2007).

9/11. Among a number of treatments of these new media projects,[6] which are commonly

known as "tactical media," Rita Raley offers the most comprehensive account. According

to Raley, tactical media relies on a "micropolitics of disruption, intervention, and

education" in order to reveal or temporarily disable systems of hyperindustrial, neoliberal

oppression (1). With a strong focus on visualizing and critiquing power, tactical media

tends to enact what would be a paranoid reading in Sedgwick's terms.

"September 12: A Toy World," a short game simulation that critiques global U.S.

military intervention, is perhaps the most well-known example of tactical media. In this

self-consciously unwinnable simulation, which borrows from the visual language of

videogames, the user has a bird's eye view of a Middle Eastern city populated by moving

figures identified as either terrorists or civilians. The user can try to kill terrorists by

pointing and clicking the cursor; however, the subsequent explosion is always delayed,

causing the user to miss his or her target and, frequently, to kill civilians. As the user

drops more bombs and increases the collateral damage, more terrorist figures begin to

emerge out of the rubble to populate the city. Aside from bombing the city, there are no

other options to explore; the highly constrained and repetitive interactivity of the

interface therefore leaves no opportunity for the user to make meaningful navigational

choices, which, of course, is by design. The message of "September 12" is clear: the only

rational action is military inaction. While it effectively makes its point about the futility

of war, as bombing campaigns within the logic of the game only breed more terrorists,

"September 12" does not allow for a more sustained, long-term engagement with its ideas

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[6] For instance, see Geert Lovink's *Dark Fiber: Tracking Critical Internet Culture* (2002) and Alexander R. Galloway's *Protocol: How Control Exists After Decentralization* (2004).

because the user "figures it out" relatively quickly. "September 12," like a number of other tactical media interventions, offers a clever and succinct political message, but ultimately tells the reader what he or she already knows.

Likewise, Josh On's data visualization "They Rule" (2004) embraces a paranoid approach in order to stage a political intervention. "They Rule" maps the social networks of the boards of directors for major transnational corporations in order to offer a visual critique of the consolidation of wealth in the U.S. in the hands of a miniscule portion of the overall population. Although the user can choose to create maps using data from a range of different companies, including Wal-Mart, Bank of America, and Verizon, all of the different maps ultimately tell the same story about the closed social networks of the powerful: "they rule." Like other examples of tactical media, "They Rule" encourages users to interactively "make" by building a social network; however, the results of the user's efforts are always the same even if the details are different. In this way, both "September 12" and "They Rule" use repetitive interactivity in order to emphasize the powerlessness of the user in the face of violence and transnational capitalism, respectively. Unlike the feminist hypertexts offering a more complex view of agency in digital networks discussed in chapter 3, tactical media emphatically dramatizes our lack of agency. The link between ostensible interactivity and political impotence in tactical media thus problematizes some recent scholarship in digital media studies and the digital humanities that valorizes building, making and interaction as the key to digital literacy.[7]

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[7] Two examples include Stephen Ramsay and Geoffrey Rockwell's "Developing Things: Notes Towards an Epistemology of Building" and Tom Scheinfeldt's "Sunset for Ideology, Sunrise for Methodology?" in *Debates in the Digital Humanities* (2012).

The limited scope of the paranoid reading offered by tactical media suggests that

hypermedia interactivity must be linked to a range of ways of seeing and knowing,

particularly historically and culturally embodied ways of knowing that Donna Haraway

has referred to as "situated knowledges," in order to allow for a more complex approach

to socially engaged literacy.

Defining Reparative Social Media

Reparative social media potentially offers us a historically situated and socially

engaged literacy that resonates with, but ultimately has different priorities than, tactical

media. While some tactical media projects embrace an ethos something like what Gayatri

Spivak once called "strategic essentialism" in order to offer a succinct and clear

message,[8] reparative social media tends to embrace the messy, unpredictable assemblages

of user-generated content. By borrowing from everyday digital practices, particularly

social media composition, reparative social media goes beyond the worthwhile yet

limited aims and representational strategies of tactical media in order to offer a more

inclusive vision of digital art. The increasing importance of user-generated content in

new media art in the early part of the twenty first century has been noted by Marjorie

Lovejoy, Christiane Paul and Victoria Vesna who contend that user-generated content is

now central to new media art as artists are transforming themselves from *content*

providers to *context* providers who use their art to critically frame user-generated content

[8] Spivak uses the term "strategic essentialism" in her essay "Subaltern Studies: Deconstructing
Historiography" (1988) to refer to the self-conscious use of essentialist discourses, in spite of their rejection
by postcolonial scholars in theory for their lack of nuance and attentiveness to hybrid identities, for political
and practical purposes.

(8). Some scholars might debate the extent to which user-generated content needs critical framing. For example, many media theorists have been generally enthusiastic about the potential of everyday practices of social media composition to create positive social change. For instance, Henry Jenkins highlights inventive content created by fans of *Harry Potter*, *Star Wars* and *The Matrix* in order to demonstrate how everyday social media use enables sophisticated and potentially subversive engagement with popular culture. Jenkins thus proposes that critical fan engagement "may be preparing the way for a more meaningful public culture" (18). Similarly, Yochai Benkler advocates for the value of "peer-production" as a means to "improve the practiced experience of democracy, justice and development, a critical culture, and community (9)."[9]

On the other hand, based on her experiments researching and teaching through YouTube, Alexandra Juhasz contends that critics have over-emphasized the critical and creative potential of user-generated content and that opportunities for self-reflexive social media composition are highly limited on commercial social networking sites. In her innovative digital book *Learning from YouTube* (2011), Juhasz suggests that social media is most often characterized by trivial, uninteresting and unimaginative content instead of the more innovative and critically engaged contributions identified by critics like Jenkins. For instance, Juhasz gives her students an assignment to create a viral video, offering an automatic "A" in the class for the creator of the video with the most views, which she hopes might lead to creative appropriation of the capabilities of YouTube. Instead, Juhasz describes the resulting videos as mostly "god-awful rehashes of paltry popular culture. A

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[9] For an in-depth critique of Benkler, see Ben Roberts's "Against the 'Networked information Economy': Rethinking Decentralization, Community, and Free Software Development" (2011).

few—the highest rated among them—are stolen music videos that were reuploaded."[10]

From this assignment and others, Juhasz shows that YouTube, on its own, is not

especially conducive for learning, community building or knowledge production.

Nevertheless, through her digital book *Learning From YouTube*, Juhasz ultimately

concludes that under the right circumstances, YouTube can become a site for self-

reflexive, critical media interventions. She writes, "Information cannot become

knowledge without a map, a structure, and an ethics."[11] The form of the digital book then

does what the architecture of YouTube itself cannot easily do: it offers a critical map for

reading. In this way, *Learning from YouTube* underscores the need to modify overly

optimistic claims about the value of everyday social media use, as the project points to

the difficulty of producing critical knowledge within commercial platforms. At the same

time, by modeling how YouTube might be remixed for educational purposes, *Learning

From YouTube* resonates with Benkler and Jenkins's claims for valuing potential

opportunities for agency on the part of users within Web 2.0 social networks, in spite of

the limitations.

  Moreover, Marxist media scholars have also problematized the positive rhetoric

around social media by showing that user-generated content and labor exploitation are

often closely linked. For instance, Tiziana Terranova argues that user-generated content

is a problematic euphemism for "free labor." Playing with this idea, Aaron Koblin's

browser art project "The Sheep Market" (2006) self-reflexively takes advantage of free

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[10] From "YouTube, Popularity, Inanity, Fun!" in *Learning From YouTube*.

[11] From "Info Wants a Map (And Ethics)" in *Learning From YouTube*.

labor to critique the assumptions of neoliberalism. Using a Web 2.0 program geared towards employers trying to access cheap and flexible workers, Koblin solicited over 10,000 images of "a sheep facing left" for $.02 each, and then sold the images for a substantial profit. Thus, "The Sheep Market" reveals how contributors of user-generated content are also an exploited labor force. At the same time, the images, which range from being mundane to subversive, reflect Terranova's succinct characterization of the contradictory nature of user-generated content where the user's "productive activities" are "pleasurably embraced and at the same time often shamelessly exploited" (paragraph 11). In this way, the commissioned sheep aptly symbolize both the unthinking user being herded along in the information economy, and the capitalist takeover of the web, while simultaneously reflecting the creative potential of user generated content, with some of the sheep facing the wrong direction, having sex, or riding in rocket ships. Moreover, the unique interactivity of the project, where users can view a flash animation of any of the sheep drawings in process from start to finish, at times points to the pleasure of imaginative labor even within exploitative regimes.

"The Sheep Market" then complicates the dichotomy I have established between tactical media and reparative social media as it provides both a paranoid critique of neoliberal capitalism and a glimpse at the heterogeneous workings of affect within networked culture. As a result, "The Sheep Market" contains elements of both tactical media and reparative social media; however, while a tactical media reading would emphasize the role of the artist Aaron Koblin as an active social agent intervening in digital labor exploitation, the reparative social media reading that I propose here

prioritizes the experience of the reader encountering the self-reflexive and imaginative user-generated assemblage of sheep. This is the key distinction between these two models for understanding new media art: tactical media emphasizes the role of the artist while reparative social media prioritizes the experience of the user. Both *Learning from YouTube* and "The Sheep Market" point to the value of bringing everyday social media practices in contact with experimental hypermedia in order to transform the potential for social media composition to offer meaningful critical agency. This does not necessarily devalue the potential for some everyday social media practices to become critical acts as Henry Jenkins has suggested; rather, it demonstrates the shared concerns between new media art and critical social media use.

Other browser art projects, which I refer to as reparative social media, also employ user-generated content in a similarly reflexive manner, but they do so with the specific aim of giving voice to politically marginalized communities that do not historically have access to new media and to embracing the messy, unpredictable assemblages of user-generated content without trying to flatten out difference, contradiction or uncertainty. In addition to "Minneapolis and St. Paul," which displays self-ethnographic content from the everyday lives of East African immigrants in the Twin Cities, I nominate the following as examples of reparative social media: "Public Secrets" (2007), which documents the experiences of women in a prison in California; "Ka Fifitu Feetu" (2003), which contains images and first person accounts of Ethiopian people living with HIV and AIDS; "Border Film Project" (2005), which juxtaposes images taken

both by migrants and law enforcement around the U.S./Mexico border;[12] and "Flight Paths" (2007-) which tells the story of an immigrant from Pakistan falling out of a plane bound for England. As I discuss in a later section, "Flight Paths" differs from these other self-ethnographic projects because it is a work of fiction. However, all of these new media art projects show the everyday survival strategies of people living under difficult conditions, particularly those who are unable to move and those who are compelled to do so. The projects I have mentioned here generally diverge from the short-term interventionist approach of tactical media, which tends to focus on revealing the wide-reaching networks of economic, political and social power; instead, reparative social media projects turn to imaginative archiving as a response to injustice. Digital media then primarily functions as a self-reflexive practice of personal and cultural as well as technical memory, and of self-composition. By combining art practice with digital archiving functionality, these projects suggest that remembering and building social affinities are meaningful political acts.

All of these projects harness user-generated content in hypermedia formats for political critique in a way that would not be possible using only the tools of commercial social media. For instance, the posed, smiling pictures of the contributors with their friends appearing again and again throughout "Minneapolis and St. Paul" could easily appear on popular social media sites like Friendster, MySpace, and Facebook, which were all launched between 2002 and 2004, just around the time that "Minneapolis and St. Paul" was completed. However, "Minneapolis and St. Paul" depicts a social network that

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[12] See Raley's *Tactical Media* pg. 57 for a more detailed discussion.

bears only a small resemblance to the aforementioned commercial social networking sites for several reasons. First, as a small-scale, collaborative project, it offers an alternative to the opaque and undemocratic governance of large-scale commercial social networking sites. As Rebecca MacKinnon argues in *Consent of the Networked* (2012), "corporations and governments that build, operate and govern cyberspace are not being held sufficiently accountable for their exercise of power over the lives and identities of those who use digital networks. They are sovereigns operating without the consent of the networked" (xxi). Although individuals willingly sign up for social media accounts, MacKinnon points out that they are guaranteed no voice in how these sites are governed, and that the governance can have serious consequences for privacy, free speech, and human rights. Collaborative small-scale reparative social media, like "Minneapolis and St. Paul" as well as "Flight Paths," that bring designers, contributors, and artists together in contrast at least potentially allow contributors to have more of a voice in how and to what ends their data is accessed, presented, and archived than can be found on large-scale social networking sites. Reparative social media thus constitutes the social, historical, cultural, and technical resistance to instrumentalized Web 2.0 labor practices, as it attempts to remake user-generated content as some, to be determined, ethical engagement, and often in order to foster transnational affinities rather than for transnational commercial or political gain. However, the not insignificant downside of collaborative, experimental hypermedia is that it circulates only among a very small set of individuals unlike the widely circulated, so-called "spreadable" contents of

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commercial social networking sites.[13] In this way, reparative social media may illuminate some issues around digital participation as self-composition as well as an alternative biopolitics of transnational self-governance but at the expense of scale and circulation.

A second key distinction between reparative social media and commercial social media is the level of interactivity that each affords. For example, "Minneapolis and St. Paul" is interactive in a minimal way as compared to commercial social media. The project displays only content contributed by the nineteen participants over a two-week period without allowing users to upload their own content or to comment on the site; as a result, users are invited to become readers rather than contributors. On the other hand, commercial social media sites encourage users to be as active as possible in the production of content, and they constantly prompt users to "write a comment" or to "share your thoughts." The core mechanic on popular social networking sites often involves collecting as many friends or followers as possible and the interface is frequently organized based on an easily digestible, linear chronology. José van Dijck emphasizes that these functionalities are not technologically inevitable but rather that "they are firmly rooted in an ideology that values hierarchy, competition, and a winner-takes-all mind-set" (21). On the other hand, when we read through "Minneapolis and St. Paul," the rhizomatic thematic of the project asks us to consider social ties not in terms of quantity of friends but rather in terms of connections between individuals and it asks us to look at the ways that the present and the past are inextricably entangled with one

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[13] The term "spreadable media" comes from the eponymous 2013 book by Henry Jenkins, Sam Ford, and Joshua Green to refer to the circulation of content within social media networks.

another, thereby opening up the possibility for an alternative, potentially more community-based and socially-engaged sense of social media.

"Minneapolis and St. Paul": Interactivity and the Production of Resonance

The complex interactivity of "Minneapolis and St. Paul" then is a crucial element for fostering reparative reading and creating a new vision of social media. In order to access the project's content, users must experimentally manipulate nineteen small circles that each represents one of the nineteen East African contributors. The user is likely to be disoriented right away as there is no map of the site as a whole, no clear sequence to follow, and no beginning or end. In addition, by design, "Minneapolis and St. Paul" reconfigures differently each time it is opened, making it likely that each user will experience the content in different sequences based on the reconfiguration of the interface and on his or her navigational choices. As discussed previously in relation to Christine Love's *Digital: A Love Story* in chapter 3, user disorientation is common among experimental hypermedia compositions, and while some critics like George Landow have suggested that disorientation can become "a source of pleasure" (146), others like Kathleen Fitzpatrick point out that disorientation is often a source of frustration. Fitzpatrick describes her students' process of reading experimental hypermedia in this way: "they stab randomly at it, trying to find their way somewhere; they wander aimlessly, trying to make sense of their paths; they finally give up, not at all sure how much of the text they've actually read, or what they should have taken from it" (97).

"Minneapolis and St. Paul" self-reflexively plays around with the recurring issue of disorientation, thereby transforming the potential difficulty, ambiguity, and uncertainty associated with hypermedia into an opportunity to read digital self-ethnography reparatively. The interface itself, an abstract map representing the Twin Cities with blocks of color rather than with highways, neighborhoods, or major buildings, serves as an apt metaphor for the move from disorientation to reparative reorientation that the project demands of the user. By not mapping directly onto an aerial photographic map like Google
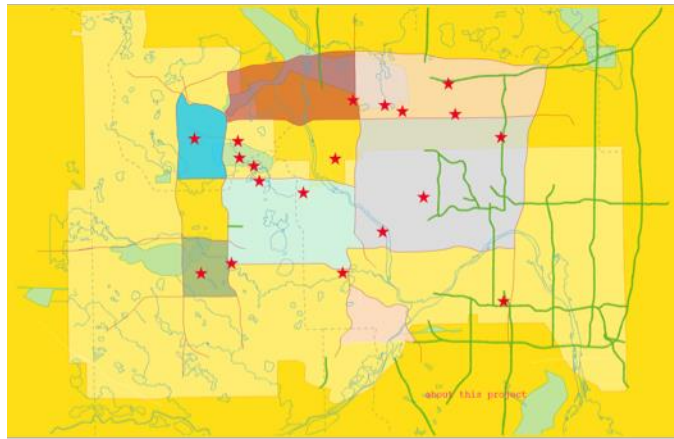

Figure 1: Screenshot, Twin Cities are East African Cities, designed by entropy8zuper! and Julie Mehretu, Commissioned by Walker Art Center, 2002-03

Maps or MapQuest, "Minneapolis and St. Paul" underscores the constructed-ness of all apparently objective representations of space and offers a map that stresses what Donna Haraway has referred to as the "historical contingency of all knowledge claims" (579). Other feminist critics of science and technology like Johanna Drucker argue that "the ideology of almost all information visualization is anathema to humanistic thought" because of its fundamental reliance on the assumptions of scientific discourse about temporality and spatiality (86). As I have argued in chapter 3 in my reading of the hypertext *Quibbling* (1995), data visualization has been and can continue to be produced from a feminist critical perspective, so that while many everyday uses of data

visualization are in fact shaped by hegemonic and instrumental values as Drucker

observes, critical visualizations as seen in *Quibbling* and here in "Minneapolis and St.

Paul" can reflect humanistic values. By not mapping the contributors' lives onto an easily

legible Cartesian map, "Minneapolis and St. Paul" posits a relationship to space that

defies the bounded-ness of a photo-realistic map. At the same time, since the imaginative

geography represented on the interface cannot be used to pinpoint the precise routes and

whereabouts of the contributors, the user's viewing and reading practices are not oriented

towards surveilling or tracking the contributors.

Because of the initial disorientation, the core mechanic of "Minneapolis and St.

Paul" becomes exploratory navigation: the user must experimentally click and drag icons

to gain a sense of the content and to try and discover a strategy for reading.

Disorientation then is an important characteristic of "Minneapolis and St. Paul" since it

gives the user the opportunity to remain open to surprise and positive affect through the

open-ended interactive process of exploration. While Kathleen Fitzpatrick's above-

mentioned students perhaps find frustration in this process because many examples of

literary or artistic hypermedia are slow to offer a payoff for the disorientation they cause,

the user of "Minneapolis and St. Paul" can still access substantive content even as he or

she works to understand the interactivity. As mentioned in chapter 3, the concept of

interactivity itself is highly contested and, as Espen Aarseth has argued, claims for user

empowerment through digital interactivity tend to be vastly overstated.[14] In this case,

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[14] Aarseth takes issue with the term "interactive" for being "typical of industrial terms appropriated by
analysts of technoculture" as it "shows how commercial rhetoric is accepted uncritically by academics"
(48). In his discussion of hypertext, Aarseth goes on to point out that in spite of claims to the contrary,

"Minneapolis and St. Paul" is interactive in the sense that users can make some meaningful choices about how to read the text even as other choices are highly constrained. For instance, there is no way to pause or to end an audio clip before it is finished, so the user is sometimes compelled to listen to over a minute of white noise from a school hallway, or to a full conversation in an East African language before being able to continue exploring. In comparison to new media projects like "September 12" and "They Rule," which each allow users to either "make" or "destroy," the user of "Minneapolis and St. Paul" who interacts by exploring might appear to be in a more passive position. However, while the above mentioned tactical media projects use their interactivity to produce a specific response in the user, the open-ended exploratory navigation of "Minneapolis and St. Paul" ultimately offers a more significant interactivity because it is not intended to create any single response on the part of the user. Instead, exploratory navigation of the rich and complex user-generated content has a reparative potential because it might have a range of effects on the user.

The apparent limitations on the level of interactivity of the site effectively position the user as an outsider to the social network of the nineteen contributors, even as the user's navigation of the site resonates with the fraught mobility portrayed in the content of the project. James Tobias contends that the divide between the interactivity of the site, which is experienced by the user, and the user-generated content, which was contributed in 2002 by the East African participants, allows for an "ethical address of the interfacial subject" (16). This ethical address thus occurs because of the resonance

hypertext fiction like Michael Joyce's *afternoon: a story* (Watertown, Mass.: Eastgate Systems, 1990) is actually perhaps more restrictive than print since the reader cannot browse freely (77).

between the user's interactivity and the teen contributors' content. How does the project establish this resonance? In order to access the images, audio, and text associated with each teenager, the user needs to manipulate the placement of the circles, which each represent one of the teenagers. The haptic engagement exerted by the user to access content mirrors the numerous local and transnational circuits of mobility displayed within the user-generated content. For example, contributor Ifrah Jimale relates that between 1989 and 2002, she has astoundingly "lived in 38 houses, 7 countries, and traveled in 3 continents." Images of Ifrah's voluntary, everyday mobility in the local setting of the Twin Cities is juxtaposed with the non-voluntary, hypermobility of Ifrah's experience as a refugee. Ifrah depicts herself in the present day as extremely mobile, knowledgeable, and capable of navigating the space of the Twin Cities downtown. At the same time, her fragmentary memories tell a story of repeated displacement, separation from loved ones, detention, despair, and adoption. The user's exploratory navigation of the interface and the haptic motion required to call up each piece of Ifrah's user-generated content resonate with Ifrah's complicated relationship to mobility.

Although the contributors frequently include photographs of themselves and others walking through crowded school hallways, traversing city streets, and riding in cars or on buses, images of Ifrah and other young women in hijabs moving through the city are particularly striking. These images push back on post-9/11 discourse about Muslim women in the public sphere which paradoxically problematized Muslim women's garb for being hypervisible while at the same time apparently making the wearer invisible. Not only do the young women who appear in "Minneapolis and St.

Paul" wearing clothing that identifies them as Muslim demonstrate their everyday belonging in urban U.S. public space, but the interactivity of the project and the urban mobility portrayed in the content might create a feeling of affinity between the user and contributors like Ifrah. In her work on race in digital art, Jennifer González argues that rather than striving for an ill-conceived digital race-neutral utopia, digital art might become a space to work out how to ethically encounter difference by embracing conflict and difficulty. While "Minneapolis and St. Paul" does not seek to create conflict, it does resist a tendency critiqued by González where the user of digital art tries on the visual appearance of the racial other. González asks, "what are the conditions for ethical relations that entail encounters with racial difference?" (38), and, in this case, the interactivity of "Minneapolis and St. Paul" paired with the user-generated content offers resonance as one possible mode for doing so.

As the user moves the dots and accesses the user-generated content, colored lines tracing the user's path through the material begin to crisscross the interface.[15] The user's experience of reading thus becomes visually intermingled with the content of the project, and apparently passive digital reading is re-coded as active since reading is visualized as a process of writing oneself onto a text. The interface then offers multiple perspectives and temporalities: the present of the user whose reading choices generate colorful lines, the present of the individual contributor represented by the small circles, the past of the individual contributor represented by black stars, and the past of East African political history, extending as far back as the Middle Ages, represented by dates and descriptions

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[15] Tobias's "Ethical Address" demonstrates that through the process of exploring the interface, the user's reading path resembles Julie Mehretu's abstract painting.

appearing at the margins of the interface. Through the process of reading, these layers

interpenetrate one another as the history and culture of East Africa and the experiences of

the contributors emerge inextricably intertwined. This strong linkage between the present

and the past is vital for the reparative effect of the project because it belies any attempt on

the part of the user to look for a straightforward historical narrative. While paranoid

reading demands a narrative with a sense of cause and effect, reparative reading allows

for open-ness to multiplicity and uncertainty in relation to the past, present and, perhaps

most significantly, the future.

Figure 2: Screenshot, Twin Cities are East African Cities, designed by entropy8zuper! and
Julie Mehretu, Commissioned by Walker Art Center, 2002-03

"Minneapolis and St. Paul" and Networked Critical Cosmopolitanism

The complex relationship not only to temporality but also to local and

transnational spaces surfaces throughout the content of "Minneapolis and St. Paul." One

instance of this is contributor Gada Beshir's interview with his classmate Iveplag about

his background and future plans. The lengthy audio recording is accompanied by

descriptive text that reads "Friend from Togo (West Africa)" and a photograph of the two young men sitting in a classroom facing a desktop computer, with a world map and a U.S. map mounted on the wall behind them. Iveplag relates his story of growing up in France, where his mother and sisters still reside, before moving to the Twin Cities with his father. Gada seems taken aback at several points in the interview that Iveplag's life experience does not necessarily conform to his expectations for West-African identity. For instance, Gada prompts Iveplag, "Wow, you're lucky, you speak more than how many languages?" and he seems startled to learn the answer: French and English. Iveplag speaks European languages rather than a language specifically originating from West Africa, and, in doing so, he potentially unsettles Gada's expectations and the user's expectations about West African social identity. Gada also seems surprised upon finding out that his friend from Togo has visited West Africa only a handful of times and that he claims, presumably hyperbolically, to "know nothing about Togo." In this way, Gada discovers that Iveplag has ties to three continents and that his identity includes but also exceeds the West African label. This moment of surprise and learning on the part of Gada potentially resonates with the surprise of the reader experiencing the content. This small exchange between Gada and Iveplag further sheds light on "Minneapolis and St. Paul" as a whole, as the user-generated content often goes beyond the tongue-in-cheek limits set by the title, "Minneapolis and St. Paul are East African Cities." Throughout, the user-generated content signals that the Twin Cities might be East African cities, but that they are also more than that as well, especially as evidenced by the appearance of West African, African-American, Hmong, Latino and White individuals, among others. The

declarative statement in the title then makes visible East Africans in the Twin Cities even as it ironically points to the mutability and contingency of the American urban landscape.

Transnational movement characterizes Iveplag's life, and while on the one hand, Gada exclaims, "you get to go to France whenever you want?," on the other hand this kind of mobility is typical of the experiences of many of their friends and classmates. In fact, both young men are invested in a cosmopolitan vision of their lives in the Twin Cities; Gada proposes the idea of their high school being full of "brothers from all parts of Africa" and Iveplag responds that he has friends from "all countries: Somalia, Ethiopia, Sudan, Egypt, Morocco." The young men rewrite the presumably white, homogenous space of the midwestern city as a cosmopolitan gathering of diasporic African communities where East Africans like Gada and West Africans like Iveplag tie their identities to various transnational sites outside the bounds of the nation state and imagine a social network based on affinity rather than on shared ethnic or national identity.

A critical cosmopolitan sensibility then becomes visible as the East African young adults self-reflexively represent both their experiences of diaspora, and their connections with groups and individuals spanning multiple transnational sites. A number of scholars have critiqued the connotations around the term "cosmopolitanism." Timothy Brennan has argued that the discourse of cosmopolitanism tends to be Eurocentric and apolitical, and Lisa Nakamura has characterized some strands of cosmopolitanism as "cosmetic" because they commodify so-called exotic bodies and places primarily to offer the American consumer a digital, colonialist gaze (14). However, Rebecca Walkowitz

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convincingly contends that the adjective "critical" can subvert the potentially negative or superficial connotations around the term "cosmopolitan," as the former "tends to imply double consciousness, comparison, negation, and persistent self-reflection" (2). The cosmopolitanism emerging in "Minneapolis and St. Paul" enacts Walkowitz's notion of "critical cosmopolitanism" through its representation of the heterogeneous social networks, multiple literacies, and complex identities and social interactions of the participants whose everyday lives it documents. "Minneapolis and St. Paul" thus functions reparatively as Gada and Iveplag look for affinity with one another without flattening out difference. As all nineteen contributors position themselves in relation to the user, to one another, to a set of overlapping and fragmentary histories, and to the urban space of the Twin Cities, they collectively demonstrate a critical cosmopolitan sensibility where belonging is hopefully imagined as partial, contingent, and ultimately possible, if always fraught.

This critical cosmopolitanism takes on new meaning in light of the events of 9/11, which occurred not long before the collection of user-generated content for "Minneapolis and St. Paul." Due to increased profiling, surveillance and detention of Muslims, immigrants, and people of color within the U.S., 9/11 might affect contributors to "Minneapolis and St. Paul" doubly: as individuals with ties to both the U.S. and to apparently newly suspicious foreign regions. The contributors to "Minneapolis and St. Paul" negotiate this potential binary by expressing grief, surprise and fear even as they also implicitly and explicitly place the events of 9/11 in a broader context of global conflict and displacement. For instance, Farhiyo Ahmed and Maryan Mohamed Ali both

include images of student art and writing displayed in their schools that responds to 9/11. Farhiyo's photograph contains an image of an American flag with the words "God Bless America" on top and Maryan's contribution shows an image of the World Trade Center. In both photographs, the iconic images of the American flag and the World Trade Center are each respectively framed by student writing. As a result, the visual rhetoric of American nationalism implicit in each image appears but is also subverted as it is located in a broader context of what Farhiyo describes as students' "thoughts and feelings." The words of another contributor, Abdulahi Hussein, resonate with these images as he reflects that 9/11 "affected me because I am American and I feared a second attack since." Abdulahi then firmly identifies himself as belonging to the U.S., in the same way that the image of the American flag and the words "God Bless America" taken by Farhiyo articulate a sense of both national belonging and national mourning. Nevertheless, these images and identifications are complicated by other non-U.S. nationalist discourse throughout "Minneapolis and St. Paul," including an image contributed by Shamso Ahmed of a Somali flag surrounded by the words "Whatever happens Somalia is my country" and glossed by a caption stating, in reference to Somalia, "I cannot imagine what to say except I love you forever." U.S. and East African nationalist discourses then coexist throughout the project thereby complicating the notion that the contributors might have a unitary sense of national or transnational identification.

Another contributor, Edao Dawano, proudly expresses Oromo nationalist sentiment throughout his contributions to "Minneapolis and St. Paul." Nonetheless, his response to 9/11 extends beyond Oromo nationalism as it gestures towards resonance

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with U.S. nationalism. Edao reflects on 9/11 in some detail, recalling feeling "seriously disturbed" as he witnessed the collapse of the World Trade Center on TV. He explains, "I used to think that America is the safest place to live. However, what happened on September 11, 2001 reminds me of the life of fear of the refugee," thereby expressing sorrow without resorting to rhetoric of American exceptionalism. Rather than echoing a "with us or against us" rhetoric, Edao finds resonance between his experience as a refugee and his experience of 9/11 from within the U.S. Through a critical cosmopolitan lens, he thus rewrites the experience of 9/11 as part of his own history of displacement, and 9/11 becomes a site for empathy rather than for paranoia. In this way, the complex and competing discourses of local, national, and transnational belonging emerging in response to 9/11 and the ambiguity they create provide the potential for reparative reading, where surprise, resonance and affinity are possible, as opposed to a paranoid reading practice which tends to be more clear, predictable and easily digestible. The reparative hermeneutic in "Minneapolis and St. Paul" allows critical cosmopolitan belonging to emerge, both from the individual contributors, and, perhaps most importantly, from the way that they collectively articulate overlapping but contradictory discourses of social belonging.

The content of "Minneapolis and St. Paul" then demonstrates how social media composition in the context of new media art can lead to meaningful knowledge production. The fact that "Minneapolis and St. Paul" does not focus on teaching the East African contributors how to write code but instead allows them to critically annotate their surroundings points to the need to prioritize critical knowledge production over technical

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literacy. As previously discussed in chapter 1, for Christopher Kelty, the former and the latter tend to be closely intertwined. Based on his ethnographic research, Kelty suggests that knowledge of code allows for individuals to create "recursive publics" where the individuals who comprise a public sphere are *"vitally concerned with the material and practical maintenance and modification of the technical, legal, practical, and conceptual means of its own existence as a public"* (3, original emphasis). In this way, Kelty's solution to issues around internet governance raised by critics like Rebecca MacKinnon is to encourage individuals to develop the technical skills necessary to create and maintain digital tools and spaces operated through consensus rather than through a corporate top-down approach. As promising as this model of the technically savvy recursive public may be, it threatens to establish technical literacy as a prerequisite for developing critical communities through digital networks.

Other scholars emphasize critical knowledge production over code as a way for a wider range of communities to access meaningful forms of literacy in the twenty-first century. Adam Banks argues that narrow conceptions of literacy and composition are insufficient in the twenty-first century, as they tend to exclude an array of formal and informal, imaginative and historically situated African American practices that produce valuable forms of knowledge. In particular, Banks suggests that the African American figure of the DJ, who has a deep familiarity with historical music genres and who expertly composes by creatively combining sound to produce new musical formations, offers a model of multimodal literacy that encompasses a "wide range of cultural practices, multiple literacies, rhetorical mastery, and knowledge of traditions" (13). Like

Kelty, Banks argues for the importance of networked sociality as a key to digital literacy; however, unlike Kelty, Banks demonstrates that technical fluencies are only a small part of a spectrum of skills, literacies and knowledges that we may use to interact with others and to build community. In this way, meaningful knowledge production in digital environments goes far beyond simply using social media or learning to code; instead, it comes from using the tools of digital media to address issues of importance to individuals and communities.

In the tradition of contemporary scholarship of literacy, from Janice Radway's study of romance novel readers, discussed in chapter 1 and chapter 5, to Adam Banks's argument for the DJ as a figure of the multimedia writer, "Minneapolis and St. Paul" suggests that literacy practices of everyday life are valuable and that no one writes or reads alone. New media art like "Minneapolis and St. Paul" that relies on user-generated content then offers an inclusive model for digital literacy that avoids prioritizing the ability to code above all else. It also provides a corrective to the relative invisibility of female and non-white digital media users in a number of scholarly ethnographic accounts where white male users are frequently presented as the norm.[16] In "Minneapolis and St. Paul," the ability of young East African men and women to position themselves in relation to a networked public is not contingent upon belonging to a technologically savvy recursive public; instead, it comes from a historically situated practice of self-reflexive media composition based on the presumably pre-existing skills and interests of the contributors, who did not code or design the interface, but who nonetheless play an

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[16]As noted in chapter 3, Henry Jenkins discusses this problem in the introduction to *Convergence Culture*.

indispensible role in the project. The contributors to "Minneapolis and St. Paul" document their own emerging, informal literacies and critical knowledges as they depict themselves studying the Koran with their friends, practicing skits for their English class, writing each other notes, and sharing cultural traditions at after-school programs. In these depictions of everyday life, the user-generated content on "Minneapolis and St. Paul" overlaps considerably with content typically available on commercial social media websites, thereby complicating the boundaries between social media and art.

Just as commercial social media sites can become spaces for questioning social norms or developing a political critique, a number of the contributors to "Minneapolis and St. Paul" use social media composition as an opportunity to interrogate the practices of those around them and, at times, to upend established social relations. For example, Gada Beshir thoughtfully questions his teachers in order to better understand their perspective on East African youth. Just as the teen contributors offer a range of perspectives, memories and affects, so do the teachers being interviewed. In all of the interviews, Gada insists on knowing what the teacher has learned about East Africa through his or her experience teaching in the Twin Cities. One teacher is East African and the interview is conducted entirely in an East African language punctuated only by dates and midwestern place names. The other teachers are not East African, and their responses reflect their different level of engagement with and interest in East African culture: one teacher fondly recalls her participation in women only celebrations before an East African wedding, another teacher talks about reading about East African warfare, and a third teacher relates that he's learned some East African curse words. The teachers'

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individual relationships to East African culture and history are as varied as those of the contributors themselves. By insistently questioning his teachers about their knowledge of East African culture, Gada reverses traditional roles and demonstrates the value of informal modes of knowledge production. In this way he asserts the significance of cross-cultural literacy; at the same time, his un-translated interview reminds the technically savvy user who has figured out how to navigate the site that technical literacy has its limits. More important, perhaps, then the question of technical literacy raised by work in the digital humanities, is the question of public being or critical cosmopolitan belonging surfacing in reparative social media projects like "Minneapolis and St. Paul." The opportunity to ask these questions as to how to design and compose the image and actuality of a variegated public sphere is this hypermedia text's reparative effect. "Minneapolis and St. Paul" thus reveals the potential of digital media to expand our very notion of literacy and composition as public practices, or as practices of composing critical cosmopolitan publics.

"Flight Paths": Collaborative Fictions and Transnational, Digital Publics

But what about individuals and communities that cannot easily write themselves into the digital public sphere? Turning from the non-fictional, self-ethnographic writing in "Minneapolis and St. Paul," this section studies Kate Pullinger and Chris Joseph's "Flight Paths" (2007-ongoing), a short-form, self-proclaimed "networked novel" that tells the story of Yacub, a Pakistani undocumented immigrant on his way from Dubai to London, who falls from the storage compartment of an airplane mid-flight. Yacub

miraculously survives, landing in a grocery store parking lot in the suburbs, where he has a strangely positive encounter with Harriet, a white, middle class British woman. This narrative draws upon tragic real world events, in particular the death of Mohammed Ayaz, a Pakistani man who fell from an airplane and was found dead in a grocery store parking lot in suburban England in 2001.[17] Reimagining this scenario, "Flight Paths" is a literary work that uses text, image, and sound submitted by dozens of Internet users from around the world to tell a story that contains moments of cross-cultural resonance and hope, even as it provides an otherwise gritty portrayal of globalization. In its attempt to bring digital social reading and writing practices to bear on contemporary problems of transnational mobility and global economic disparity, "Flight Paths" presents a self-proclaimed novel which does not simply repeat print novelistic conventions in a digital format. Instead, it seeks to reinvent the print novel as a richly layered, interactive and, most importantly, social literary work.

"Flight Paths"'s engagement with real world events like the death of Mohammed Ayaz raises the following question: under what conditions is it ethical or even possible to represent the experiences of others? Gayatri Spivak has famously addressed this question in her seminal essay "Can the Subaltern Speak?" (1988), where she argues that even well-intentioned, progressive western philosophers such as Michel Foucault and Giles Deleuze tend to universalize the experiences of the Western world at the expense of the postcolonial Other. As a result, Spivak asserts that the "subaltern cannot speak" (311). By

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[17] This tragic episode, reported in an article in *The Guardian* by Esther Addley and Rory McCarthy entitled "The man who fell to earth" is explicitly cited by the creators of *Flight Paths* on the blog (http://www.netvibes.com/flightpaths#Blog).

focusing in particular on discourses around the death of subaltern women, especially related to *sati*—the (infrequent) practice of ritual suicide of Hindu widows, Spivak illustrates the illegibility of the experiences of people like subaltern women who have not left records of their thoughts for others to read after their deaths. Like Spivak's essay, "Flight Paths" is also interested in meditating on the figure of the subaltern, and it does so through collaborative, experimental fiction that, like "Minneapolis and St Paul," uses social media composition critically. Nonetheless, a key difference between "Minneapolis and St. Paul" and "Flight Paths" is that while the contributors in "Minneapolis and St. Paul" are all writing self-ethnographically about their own experiences, "Flight Paths" contributors write imaginatively and ethnographically about both Yacub, a stand in for the figure of the subaltern who cannot write himself into the digital public sphere, and Harriet, a middle class British woman who contributors might be more likely to initially identify with. As Spivak's work suggests, representing the Other can be a more ambivalent and ethically challenging enterprise than representing the self; at the same time, "Flight Paths" makes visible the value of attempting to do so.

The idea of collaboratively transforming a real-life postcolonial narrative into a fictional narrative written, at least in part, by an English-speaking writer based in the U.S or western Europe is not unique to "Flight Paths." For instance, Dave Eggers's *What is the What* (2007) is a widely read, recent example of this genre. *What is the What* is a fictionalized autobiography of Valentino Achak Deng, a refugee from Sudan, one of the self-described Lost Boys, who survives a difficult and dangerous journey through East Africa and ends up living in the U.S.. Based on the collaborative nature of the novel that

narrates Deng's life story through Eggers, Sidonie Smith and Julia Watson describe *What is the What* as a "project of negotiation" that "in all its asymmetries and reversals, calls for a new way of reading in which 'authenticity' is interrogated on multiple levels" (616). Smith and Watson argue in particular that the metafictional elements of the novel, such as the foreword by Deng testifying to the veracity of the narrative, embrace the interplay between fiction and non-fiction as they destabilize any notion of an authoritative first person narrator.[18] Within the body of the story, the fictional narrator of *What is the What*, drawing attention to the constructed nature of storytelling, explains, "But now, sponsors and newspaper reporters and the like expect the stories to have certain elements, and the Lost Boys have been consistent in their willingness to oblige…My own story includes enough small embellishments that I cannot criticize the accounts of others" (21). *What is the What* thus constantly reassures of its veracity on the one hand even as it calls into question the nature of memory and self-writing on the other hand. In this way, like "Minneapolis and St. Paul," it functions self-reflexively; furthermore, it reimagines the novel as a space for the collaborative composition of history.

While *What is the What* then offers one model of visibly negotiated, self-reflexive literary collaboration, "Flight Paths" offers another, where readers can contribute to the process of researching and composing the narrative, albeit in a limited way. The collaborative process of collecting stories, ideas, and user-generated content for "Flight

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[18] Smith and Watson observe, "Deng's para-textual commentary confounds the normative relationship of typical witness narratives, in which someone with cultural authority attests to the credibility of the witnessing subject and the truth of the story that follows. Here, in contrast, the survivor of violence and extremity attests to the verisimilitude of the fictional version of the life story presented. As a consequence, *What is the What* stakes its claim to authenticity in fiction and troubles the ground upon which authenticity is secured. In it, the question of autobiographical truth-telling in testimony to atrocity is aesthetically problematized at the same time as it is ethically resolved" (614).

Paths" takes place on a Netvibes page, a platform that, in characteristically inscrutable Silicon Valley language, describes itself as "the dashboard of everything: social media, brand monitoring, news aggregation, data analytics and real time intelligence." Essentially, Netvibes is a web-publishing tool, similar to Wordpress, that anyone can view and contribute content to. The Netvibes site ideally provides a space for sharing resources and discussing stories of transnational immigration, and users are encouraged to submit writing, video, images, and sound. In reality, the site is cumbersome and fairly difficult to navigate for those less familiar with web publishing and social media platforms, and it appears that the majority of the contributions are from the same few contributors; of course, this is not uncharacteristic of social media in general where, as Susanna Paasonen observes, many more people are lurking and reading than commenting or uploading content. Nevertheless, as Pullinger herself points out in an interview with Jeremy Hight, the cluttered Netvibes interface likely was too high of a technical barrier for "many people who were interested in the project, as readers and also as potential contributors." She writes, "This has been the case with many of the open collaboration projects I've been involved with over the years –the gap between our perception of the ease-of-use of almost all digital platforms, and contributors' understanding of those platforms, has been large" (2). In a project like "Flight Paths" that is geographically distributed, technical difficulties can be more acute and more difficult to resolve than in a project like "Minneapolis and St. Paul," where the contributors are more easily able to interact with the project organizers. In this way, the Netvibes blog is a revealing experiment that offers a counternarrative to accounts by critics like Christopher Kelty and

even Henry Jenkins that assume relatively high technical fluencies, especially in Kelty's case, as a starting point for enthusiastically touting the myriad culturally and politically engaged possibilities of digital composition. On the one hand, the Netvibes site models an approach to literary composition that radically opens up the creative process to anyone who would like to be actively involved or to anyone else who would like to read and watch as the story unfolds. The lasting benefit is that the site functions as an easily accessible digital archive for the project. On the other hand, the difficulty of reading and navigating through the site potential forecloses user engagement, and, moreover, the highly open-ended nature of the blog may make it difficult for users to determine what or how they might contribute.

The value of collaboration is something that has recently received quite a bit of attention in the digital humanities. For example, Lisa Spiro argues for the fundamental importance of collaboration not only because it brings together people with different expertise—i.e. humanists and web developers—but also because it allows individuals to "participate as part of a team, learning from others and contributing to an ongoing dialogue" (25). Collaboration can then allow for a kind of openness especially useful for engaging with the unknown; at the same time, collaboration can be a much more complex and challenging value than it may at first seem. For instance, before her work on "Flight Paths," Kate Pullinger, under the auspices of Penguin Books UK and De Montfort University, organized an open, collaborative novel writing project called "A Million Penguins" (2007), where anyone could help to co-write a novel on a wiki platform over the course of several weeks. As would be expected on such a large scale project, the

contributions ranged in length and content, and included individuals with disruptive

intentions, described by Pullinger as "porn vandals" who were "replacing perfectly good

nouns with genitally precise nouns" (*Guardian* 2007). Although the project began with

the question "Can a Community Write a Novel?," Pullinger suggests that the question

needs to be reframed, as "the project shows that groups can collaborate and can write a

multiplicity of stories, but perhaps it's too much to expect such a large community (nearly

1,500 contributors) to come up with a single, cohesive narrative in such a short space of

time" (2007). Ultimately then, "A Million Penguins" is a literary experiment that shows

the difficulty of substantive, large-scale creative collaboration.

In fact, the most famous and arguably the most successful model for effective,

large-scale digital collaborative writing is expository rather than literary: Wikipedia.

Wikipedia is the six-largest web platform in the world, and, although some fear that it is

unreliable or inaccurate, studies have shown that Wikipedia is equally as reliable as other

non-user-generated encyclopedias.[19] Moreover, Wikipedia has a fairly extensive, multi-

layered peer review process that makes collaborative writing on such a mass scale even

possible. Nevertheless, José van Dijck suggests that one of the five core principles of

Wikipedia, that writing should be from a "neutral point of view," is problematic. She

shows that some users feel that the emphasis on writing entries, especially on

controversial topics, from a neutral perspective potentially "rigorously coerce[s] users

into consensus formation" and "squelche[s] discussion and diversity of opinion" (141).

Daniel O'Sullivan likewise notes, "Wikipedia has the potential to proliferate voices and

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[19] José van Dijck points out that Wikipedia has "survived several tests comparing its quality to established encyclopedias" (133).

dissent—and yet the increasingly bureaucratic 'policing' of its content, as for example

with NPOV [Neutral Point of View], means it is in danger of merely mirroring the typical

knowledge economies of the West" (48). In this way, the emphasis on neutrality and

consensus, and, to that end, the banishing of debates to behind the scenes of Wikipedia in

order to present a coherent narrative on each content page, tends to uphold the status quo.

Wikipedia is so successful as a collaborative enterprise because of the clearly defined

boundaries it establishes; at the same time, it potentially silences non-hegemonic

discourses and, in doing so, does not offer a model of collaboration fitting for creative

expression.

"Flight Paths" is distinct from both the imaginative anarchy of "A Million

Penguins" and the bureaucratic neutrality of Wikipedia. Of course, this is in part because

"Flight Paths," like the other examples of reparative social media, is a small-scale project,

especially as compared to Wikipedia. "Flight Paths" may have a slightly larger

circulation than other reparative social media because it is archived in the Electronic

Literature Collection, Volume 2, an important digital resource used by scholars and

students of digital literature.[20] The contributors who created content for each episode are

listed in the credits of that episode, sometimes with their full name and other times with a

username. The credits page contains links to the contributors' flickr accounts, a popular

photo-sharing website. By following these links, it is possible to glean some information

about the contributors, but it is ultimately not fully clear who they are or where they

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[20] "Flight Paths" may also receive some added interest due to the relative popularity of Kate Pullinger and
Chris Joseph's interactive fiction *Inanimate Alice* (2005-ongoing), a fairly well-known, creative work
concerned with digital literacy.

come from. It is likely that many of them are based in the UK, where the authors are based, or they presumably all have strong enough connections to the UK that they were able to find out about the "Flight Paths." In any case, most of the contributors can probably relate much more closely to Harriet, the British woman living in the suburbs, than they can to Yacub. Drawing from conversations with the contributors and from content on the blog, Pullinger and Josephs wrote and designed "Flight Paths" respectively.

"Flight Paths" is divided up into six short episodes, beginning with Yacub's time as a construction worker in Dubai and ending with him playing video games in the UK. Unlike "Minneapolis and St. Paul," "Flight Paths" is essentially a linear, chronological narrative that the reader traverses in a fixed order by clicking on hyperlinks to advance the story. The term "episode," rather than, say, chapter, reflects "Flight Paths"'s indebtedness to cinema and television, and "Flight Paths," which is basically a flash slideshow of semi-abstract photographic images overlaid with text and containing mood-setting music and audio effects, uses filmic techniques such as panning and zooming to give the reader the experience of seeing the world from both Yacub and Harriet's points of view. For instance, in the first episode, Yacub arrives in Dubai, where he has a lengthy bus ride to and from the work site everyday. The images of the urban architecture sliding by on screen give the reader a sense of his blurred and limited perspective of the city that he is not free to explore. The user can control the tempo of the reading experience at certain junctures in each episode where hyperlinks appear, but other parts are animated at a fixed pace that cannot be paused, and they appear to the reader more like time-based

media than textual media. The photographs used in the project are heavily manipulated and stylized, with an emphasis on color and texture, creating a painterly effect. This allows the faces of the construction workers shown in photographs to be obscured, a move that makes sense when using real photographs for a fictional story. Moreover, the abstraction of photographic images resonates with the abstract map of the Twin Cities in "Minneapolis and St. Paul;" in both cases, the use of stylized imagery reflects a turn away from the kind of so-called objective or verifiable truth that might be found on Wikipedia towards a privileging of located, subjective knowledges.

A key moment in the narrative comes when Yacub falls out of the airplane onto Harriet's car in episode four, entitled "Dark Mass." The episode uses a split screen to depict the perspectives of Yacub and Harriet simultaneously. On the right side of the screen, a black background is overlaid with Yacub's thoughts from the his precarious place inside the airplane: "There is no room for me on this shelf; there is no secret entrance into the cargo hold." On the left side, images of a brightly lit grocery store are overlaid with Harriet's thoughts as she shops, including, "the boy at the checkout is unaccountably cheerful, and this makes me smile." Here Yacub's harrowing journey is juxtaposed with everyday life in hyperindustrial England. This contrast continues as Yacub describes being "crushed into this too small space; I have been here for an eternity" as Harriet describes pushing a shopping cart with "wonky wheels" across the parking lot. The split screen between Harriet and Yacub allows us to see the marked difference between their life experiences, and it underscores the unlikelihood of them encountering one another. The split screen turns into an image of a cloudy blue sky as

Yacub falls from the airplane as Harriet looks on. Both comment on what is happening; Yacub says, "I am falling through the sky" as Harriet says, "A dark mass, growing larger quickly." As these words appear, the image of the sky moves vertically to create the impression of falling, and multiple thoughts from both Yacub and Harriet appear in succession, as the project considers what falling from an airplane might be like from the perspective of the person falling and from a person watching on the ground. In this way, episode four of "Flight Paths," through its use of split screen and dual narration, reveals how Yacub encroaches on Harriet's suburban life, even as the first episode, where Yacub finds himself working in inhumane and unbearable conditions in Dubai, reflects how global capitalism, driven by hyperindustrialized nations like the UK and the U.S., encroaches on the lives of people living all over the world.

In this way, "Flight Paths" is a narrative about global interconnectedness and our responsibilities to one another. In spite of the seeming unlikeliness for this to happen based on their widely divergent life situations, Harriet and Yacub meet in episodes five and six. After Yacub survives his fall, he and Harriet speak to one another for the first time. In this scene, Yacub asks, "Am I dead?" and Harriet responds, "I thinks so. You must be. Am I?" Their encounter is so unexpected and implausible that Harriet assumes that they both must be dead. Uncertain if Yacub is actually alive and real or whether she is hallucinating, Harriet agrees to take Yacub home where he plays video games with her son. Ironically, they play a military inspired game called "World of Battle Fatigues" that calls to mind their different experiences of state violence and creates an uneasy sense of companionship even as the power asymmetry between them remains ever present.

Through this unexpected turn of events, "Flight Paths" imagines an alternate reality, where Harriet and Yacub might interact with one another, creating affective bonds, without oversimplifying the delicate negotiation of power at play in the narrative. At the same time, the earlier episode of "Flight Paths" focusing on the working conditions in Dubai and Yacub's flight are highly critical of the global economic order that creates the conditions where people like Yacub are left with so few options that risking their lives to leave their home countries becomes the most viable one. In its complex portrayal of transnational mobility, "Flight Paths" asks us to consider how we might be truly open to the Other, and how we might encounter difference without flattening it out or turning away.

In 2014, Pullinger published *Landing Gear*, a novel fleshing out the stories of Harriet and Yacub. "Flight Paths" is now part of a larger transmedia story, including the blog, the digital story, and the novel. The turn from the "networked novel" back to the format of the print novel (available in print and eBook) reflects the fact that more established literary media like the novel can be most effective for conveying long-form narrative whereas digital media like the Netvibes blog and "Flight Paths" can be best for engendering collaboration between diverse, geographically disparate groups of people. In this way, digital literature is not replacing the print book, but it does open up new possibilities for what literary collaboration might look like, especially with regards to stories like "Flight Paths," which are enriched by transnational, social media contributions. In this way, "Flight Paths" models how opening up literary composition to a broad range of individuals can have successes and failures, but it can work to make

social media reparative, where social media fosters risk, vulnerability to failure, and moments of surprise and new connections, resonating with the moment of surprise when Yacub and Harriet speak to one another for the first time in episode five, wondering if they are both dead. In doing so, "Flight Paths" offers a vision of socially-engaged, transmedia transnationalism that contributes to ongoing scholarly conversations on "spreadable media" and fan culture by critics like Henry Jenkins. Ultimately, "Flight Paths" is just a small experiment that shows us some of the risks and benefits of networked, transnational collaboration. When we read it in conjunction with "Minneapolis and St. Paul," which focuses on transnationalism through the lens of the local, we see two distinct yet related approaches for using digital media critically to articulate the everyday experiences of underrepresented voices within the current global economic order.

Toward a Model of Networked, Transnational Literacy

The reparative model of belonging emerging in "Minneapolis and St. Paul" and "Flight Paths" contrasts sharply with the dominant modes of transnational knowledge formation of our time. Rey Chow aptly describes our contemporary historical period as "the age of the world target" in order to convey how knowledge about global cultures within the U.S. is typically positioned instrumentally, as preparation for future military conflict, as any world region might become a future target. The value of a project like "Minneapolis and St. Paul," then, is that instead of appearing as *targets* who are vulnerable to surveillance and unable to represent themselves, the contributors are able to

position themselves as self-reflexive, critical *subjects* and the project, although self-ethnographic, defies an instrumental reading due in part to its experimental, imaginative composition and to the fragmented, partial nature of the user-generated content. Instead of lending itself to an instrumental reading, then, the critical display of user-generated content has the potential for resonance, where the user can be moved in a number of different ways, but at the same time, it offers no guarantees of what will resonate or how it will do so. In this way, reparative social media invites the user to develop a reading practice characterized by curiosity, open-ness, and a willingness to be surprised: characteristics that might avoid reinforcing hegemonic narratives onto historically marginalized communities. In "Minneapolis and St. Paul," this becomes particularly relevant in the case of Muslim women, who contrary to the typical U.S. and European discourse of hypervisible, faceless victims, present themselves as visible subjects with complex, overlapping ties to a larger networked public so that communal and self-representation becomes a feminist act of reimagining the stakes of media literacy.

As we have seen, transnational literacy, as demonstrated by both "Minneapolis and St. Paul" and "Flight Paths," involves reading user-generated content in conjunction with the formal features of hypermedia. This is especially significant because imaginative hypermedia composition has been written off by many as esoteric experimentation with form that lacks any wider audience beyond those immediately concerned with the problems of digital design. This notion is reinforced by the fact that beyond its enthusiastic proponents like George Landow and Katherine Hayles, hypermedia is not widely studied by critics of contemporary culture, and, in fact, according to Katherine

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Hayles, some literary critics, including Jerome McGann, have argued that the quality of "the most complex and interesting" electronic literature pales in comparison to "even modest works in the print tradition" (38, 2005). Regardless of how convincing or not McGann's sentiment may be, looking at hypermedia through the lens of reparative social media demands that we reassess its value, not necessarily as literature in the tradition of print culture but instead, especially in the case of "Minneapolis and St. Paul," as a model of formal experimentation that might lead to politically engaged practices of digital, transnational literacy. In this way, reparative social media projects are more than just apparently opaque experiments with new media poetics; rather, they attempt to develop a new formal language that emphasizes multimodal and radically inclusive literacies and that resonate with concerns around self-representation, mobility, embodiment, and globalization as articulated by postcolonial and feminist critics. These efforts are not always fully realized, but they are suggestive of future possibilities for communal self-composition that take advantage of digital affordances. The next chapter continues the exploration of mapping local and transnational space in global networks and composing using social media functionalities begun here; however, in chapter 5, these tendencies play out in more extreme and at times problematic forms, raising questions about the future possibilities and limitations of critical literacies in the digital age.

Chapter 5

Reimagining Everyday Literacies: Geospatial Orientation and Literary Values

While many of the experiments discussed in the previous chapters are fairly

rarified or geared at niche audiences, this chapter turns to literacy practices that shape or

are directly shaped by our use of digital media in everyday life. The previous chapters

have explored literary experiments in print and hypertext, and the works discussed in this

chapter stretch the term "literary" to its limit as they model how literary values may

surface and circulate out of the context of the print book or hypertext fiction. In

opposition to the persistent discourses about the death of literature in our contemporary

moment, perhaps most famously articulated by Sven Birkerts in *The Gutenberg Elegies*

(1994), this chapter traces how presumptively non-literary spaces, such as urban parks

and online shopping websites, are in fact taking a turn towards becoming literary as

people take advantage of mobile computing devices and social functionalities to annotate

them. I read the locative story *The Silent History* (2012) and satirical user-generated

content on Amazon as two key examples of the imaginative and generative yet limited

potential of literary forms that intersect with our practices of everyday life.

Everyday life has long been a central concern for scholars of digital media studies

like Sherry Turkle, whose book *Life on Screen* (1995) offers a seminal analysis of the

playful, therapeutic, and expressive potential of 1980s and 90s social computing

platforms like MUDs, even as it views computing as supplemental to "real life."[1]

Turkle's early writing on digital culture continues to be widely—albeit often

glancingly—cited in more recent scholarship due to the rich first-hand accounts she

offers of everyday life on the web,[2] especially in the present moment as critics of digital

media from Susanna Paasonen to Mizuko Ito continue to emphasize the importance of

critical study of ordinary digital media users. Moving away from her more optimistic

writing on human computer interaction in the 1980s and 90s, Turkle's most recent study,

Alone Together (2011), explores, in her view, the troubling saturation of everyday life

with smartphones, laptops, and other technogically-mediated rather than face-to-face

forms of communication. She suggests that ubiquitous communication technologies

function paradoxically as, "we are increasingly connected to each other but oddly more

alone" (19).

 While Turkle emphasizes how our everyday uses of digital technologies may be

damaging to our personal development and our relationships, other critics like Siva

Vaidhyanathan, José van Dijck, and Felix Stalder express concern about the ways in

which our everyday media practices are often commercialized and operating out of our

control as they are interpellated within privatized, corporate networks, platforms, and

web services like Google and Facebook. In his critique of the "googlization" of our

everyday lives, Vaidhyanathan points out that "we are not Google's customers: we are its

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[1] MUD, which stands for "multi-user dungeon," refers to text-based online role-playing games most popular in the late 1980s and early 1990s. These share some similarities with the interactive fiction discussed in chapter 3, although the key difference is that MUDs are social.

[2] For instance, N. Katherine Hayles's *My Mother was a Computer* (2005), Wendy Hui Kyong Chun's *Control and Freedom* (2006), and Patrick Crogan's *Gameplay Mode* (2011) all briefly cite *Life on Screen*.

product. We—our fantasies, fetishes, predilections, preferences—are what Google sells to advertisers" (3). In this way, Vaidhyanathan suggests that we lose our agency as Google turns us into commoditized data whose storage and use we do not control; as a result, he argues that we cannot cede governance of the internet to one or even a few powerful companies because the outcomes could negatively affect our agency and access to knowledge now and in the coming years. He points out that even if Google is serving our needs at the moment, that may change in the future. Vaidhyanathan writes, "The imperatives of a company that relies on fostering Web use and encouraging Web commerce for its revenue may understandably morph into a system that privileges consumption over exploration, shopping over learning, and distracting over disturbing" (12).[3]

Taken together, the work of critics like Vaidhyanathan on the structural problems underlying our social media use along with Turkle's work on the effects of social media on modern selfhood results in a general pessimism about our ability to act in meaningful ways in online spaces and to interact with one another substantively when mediated by these platforms. However, these views both oversimplify our complex relationships with the technologies and interfaces that we use to archive and transmit data. Eschewing binary models like the one proposed by Vaidhyanathan that positions Google and everyday users in oppositional terms, N. Katherine Hayles argues for "intermediation," which she characterizes as a "multi-tiered system in which feedback and feedforward loops tie the system together through continuing interactions circulating throughout the

[3] As discussed in chapter 4, the problem of governance is addressed from a related perspective that puts more emphasis on politics and citizenship in Rebecca Mackinnon's *The Consent of the Networked* (2012).

hierarchy" (45). In this way, Hayles convincingly imagines our digital reading and writing habits as a comingling of top down and bottom up interactions, whereas Vaidhyanathan views the top down forces as oppressively squelching grassroots efforts. Drawing upon Hayles's view of layered complexity in human-computer dynamics, this chapter explores literary experiments that model new ways of thinking about the limits and possibilities of literate communities online and off. Still taking into account critics like Vaidhyanathan who are concerned about the backend systems that create the conditions for our digitally-mediated communication, my question is this: how can literary devices help individuals map or remap space in meaningful ways, both in response to or in advance of ongoing efforts by digital software and service providers discussed in this chapter like Apple and Amazon to do so?

Giles Deleuze and Felix Guattari's notion of the "rhizome" is useful for understanding the assemblages of hardware, software, data, and human labor that make up entities like Amazon or Apple. The rhizome is presented as a spatial metaphor, as, according to Deleuze and Guattari, "*a map and not a tracing*" (12, their emphasis), and they argue that "the map is open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification" (12). Viewing companies like Apple and Amazon as rhizomes that map space according to logistics that require mapping to be flexible and always in progress allows us to take into account at the same time Deleuze and Guattari's point that "a map has multiple entryways" (12). In other words, in spite of the wide reach of the rhizome, there is also a multiplicity of opportunities for engagement with it, an idea addressed from a slightly different but related perspective by Bruno

Latour's "actor-network-theory." Taking location-based fiction and viral user-generated content as two key examples, this chapter studies how literary values contest or interrogate spatial assemblages by reimagining the contexts of reading and writing in commercial and public spaces.

In terms of how physical spaces are being transformed, a relatively small group of literary works have begun to use mobile computing technologies to create place-based digital fictions, commonly known as "locative media," which allow readers to access works within certain geographical constraints. Recent innovations in mobile computing, in the form of laptops, smart phones, and tablets, have made locative technologies widely accessible, and popular apps ranging from Yik Yak to Grindr to Yelp rely on geo-locating technology to allow people to resonantly communicate with others who are geographically proximate or to access nearby goods and services.[4] Taking a critical approach to mobile media, Jason Farman's *Mobile Interface Theory: Embodied Spaced and Locative Media* (2012) offers a thorough overview of experimental mobile media apps, games, and narratives, and he argues that locative media like *[murmur]* (2003), a multi-city project where readers can dial phone numbers posted around urban areas to call up site-specific oral histories, can effectively bring communities together by layering histories into our everyday lives rather than isolating individuals as Turkle might suggest. In spite of the ubiquity of mobile technologies, locative *literary* texts are still fairly unexplored territory, although apps like *Poetika*, a Spanish language app that displays poems based on the weather, time of day, and location of the reader, point to some of the

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[4] Locative media need not rely on GPS or any single software. For instance, some forms of location-based media rely on a phone number or a QR (Quick response) code posted on a sign.

possibilities. However, locative literary forms are not simply determined by emerging

mobile technologies as they often respond to some of the same concerns about place,

embodiment, and limitations on mobility under neoliberal globalization addressed in

contemporary print novels like Aravind Adiga's *Between the Assassinations* (2008) and

Hari Kunzru's *Transmission* (2005). At the same time, their technologically mediated

mapping of space raises new questions for postcolonial theory and literature to answer. In

addition to their literary genealogies, locative fictions also borrow from a rich historical

and contemporary archive of place-based telecommunications experiments, virtual

reality, video games, and radio/podcasts. Kit Galloway and Sherrie Rabinowitz's

Electronic Café-84 (1984) exemplifies early place-based telecommunications

experiments,[5] while popular contemporary works like Google's *Nightwalk in Marseille*

(2014), *Zombies, Run!* (2011), and *Jetset* reflect how virtual reality, podcasts, and games

respectively interrogate and reimagine our relationships to local sites.[6]

This chapter studies a recently published and widely reviewed locative fiction,[7]

The Silent History (2012), a story created exclusively for iPads and iPhones that, in the

spirit of popular post-apocalyptic media narratives such as *The Road* (novel 2006, film

2009), *The Walking Dead* (graphic novel 2003, television 2010), and *On Such a Full Sea*

(novel 2014), tells the futuristic story of an epidemic of muteness through a series of

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[5] Annmarie Chandler offers an in depth discussion of *Electronic Café-84* within the context of an anthology of criticism on a range of networked art experiments of the 1970s and 80s.

[6] For an overview of the airport-based, locative iPhone game *Jetset*, see Jane McGonigal pg. 150-151.

[7] While the majority of the digital fiction and digital art discussed in the dissertation so far has been geared at niche audiences and/or has been primarily discussed by new media scholars, *The Silent History* received a substantial amount of attention in the popular press and was reviewed in *The Guardian*, the *Los Angeles Times*, and the *San Francisco Gate*.

different narrators. Because *The Silent History* is only accessible via mobile computing device, it is explicitly designed to be portable; moreover, some of the content, "field reports" submitted by readers and vetted by the creators, are tied to GPS technology and can only be accessed at specific locations. Like "Flight Paths" discussed in chapter 4, *The Silent History* models the ongoing interplay between literary authorship and social media participation in contemporary media forms as it suggests both the value and limits of participatory culture. In my discussion of the way readers experience *The Silent History*, I consider problems as well as the possibilities of reimagining urban space as the chapter explores whether locative fiction helps us to engage with our communities in new ways or whether it simply increases the existing digital divide, alienating those with access to sophisticated mobile devices from those without. In particular, this chapter studies how *The Silent History* deploys metaphors of illiteracy to challenge our common sense uses of technology within privatizing public spaces.

The second half of the chapter turns from locative fiction in physical spaces to literary form in online spaces that are being transformed by new and old ways of reading and writing. This may seem counter-intuitive based on our everyday experiences of digital media, where the everyday web may seem highly commercial and predictable due to the presence of targeted advertisements and similar functionalities like commenting features across sites. Novelist Zadie Smith, author of *White Teeth*, talks about the strangeness of the commercialized web, "where ads for dental services stalk me from pillar to post and I am continually urged to buy my own books." In part due to these pressures, modes of literary fiction, especially satire, discussed at length in chapter 2, are

creeping into online spaces ostensibly reserved for social or commercial purposes as artists, writers, and ordinary people find ways to infuse literary and artistic values into unexpected places. Artistic and literary interventions into everyday practices on the web are diverse in content and form, and while some are artist-driven others are informal collaborations. The following are a few examples of the broad range of forms these experiments take. Contemporary artists like Kate Armstrong create art that reimagines the value of social media by putting it into new contexts; so, for instance, Armstrong's "Why Some Dolls are Bad" (2007) is a graphic novel that grabs images uploaded to Flickr and pairs them with original text and her *Source Material Everywhere* (2011) is a print book that remixes the Wikipedia entries for "Source," "Material," and "Everywhere," translating them into print form. Both projects self-reflexively draw attention to our processes of reading and writing in digital landscapes, turning social media content into found art. Other artists embed artistic form directly into our everyday experience of the web. For instance, A. J. Patrick Liszkiewicz and Lucas Miller's "Mark Ditto Mark" browser extension replaces proper names on any website with the name "Mark Ditto." So, a headline that reads "Mitt Romney decides not to run for president" would instead read, "Mark Ditto decides not to run for president." In this way, the authors claim that "Mark Ditto Mark transforms the internet into a gigantic, sprawling novel about someone names 'Mark Ditto'." [8]

Moreover, there are a number of grassroots and loosely organized forms of literary writing online. One particularly fraught and ethically troubling genre where

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[8] "Mark Ditto Mark" calls to mind *J R* (1975), discussed in chapter 2, which similarly takes non-literary discourses and recontextualizes them within a large-scale novel.

everyday internet practices and literary form meet is "scambaiting," a practice whereby American and western European "scambaiters" respond to email requests for money, often originating from west Africa, that they know to be false in order to turn the tables on scammers by fooling them into investing their time and resources into perpetuating a scam that will not succeed. Anton Kirchhofer describes the ethical ambiguities and orientalist paradigms that these scambait fictions tend to ultimately reinforce as they "rearticulate the familiar pattern according to which 'black' equals dishonest and selfish, and 'white' equals integrity and self-sacrifice for the sake of a higher good" (189). Keeping in mind the limits of grassroots efforts to reimagine everyday internet use such as scambaiting, I look to another casual, communal effort: satirical product reviews on Amazon. These product reviews suggest how informal play and performance rather than professionalized art-making can also inject everyday online environments with literary values. For this, I look to satirical product reviews of the BIC Cristal for Her Ball Pen, a pen marketed towards women, exploring how the reviews interrogate the relationship between literacy, technology, and gender. Frequently, these satirical reviews become narratives of illiteracy that play with the idea of women being unable to write without a gender-specific pen. Just as locative media seeks to rewrite our engagement with physical space, satirical product reviews are an informal, collective effort to revise instrumental networked writing.

In this way, both locative fiction and satirical product reviews offer examples of how literacy, play and fictional narratives fit into our everyday digital lives and how they point to both the unsettling and potentially generative practice of reading out of context. I

argue that the values of the literary are useful in this context as they allow us to view digital media through the lens of imagination, difficulty, and engagement with difference in addition to the typical paradigms for understanding digital media like interactivity, openness, and participation. In this case, both projects engage with the meanings of illiteracy, but locative fiction seeks to recoup the technical-metonymic displacements that Donna Haraway tried to forestall with "situated knowledges," while the reviews satirize techno-capitalist spatial mastery without overtly resisting it. Nevertheless, even as literary values allow digital works to investigate contemporary problems around illiteracy and mobility, at the same time, literary values can problematically serve the status quo or amplify socio-historical exclusions. In this way, while we might think of studying literature as enabling values like self-expression, imaginative representation, and critique of hegemonic cultural narratives, Gauri Viswanathan demonstrates that, in the context of nineteenth century colonial India, English literary curriculum was used as "an instrument of western hegemony" (167), or as a way to inculcate Indian students with British values. Viswanathan's historical study of literary reception and circulation reminds us not to overstate the power of literary values because in spite of the subversive potential of many literary works, they equally have the potential to be read instrumentally and taught coercively. Other critics like Lindon Barrett and Janice Radway, both discussed below, explicitly and implicitly critique how historical exclusions of African Americans and women respectively are tied to notions of the literary, in doing so, they make visible the limitations of literary values.

Taking into account the kinds of problems identified by Viswanathan, Barrett, and Radway, this chapter uses literary form as a paradigm for thinking about digital and multimodal composition in rich new ways. The value of multimodal literacies remains contested in composition and rhetoric studies, as influential texts like Anne Wysocki et al.'s *Writing New Media* (2004) and Cynthia Selfe's *Multimodal Composition* (2007) each open with a series of justifications for even teaching multimodal forms of writing. In this chapter, I argue that geospatial literacy, or an attentiveness to place in terms of our practices of reading and writing, is a vital and often-overlooked part of multimodal literacy. Moreover, this chapter considers how literary modes in addition to attentiveness to geospatial orientation can lead to compelling experiments in multimodal writing that draw upon longer rhetorical traditions as they connect readers across a multiplicity of local sites. Felix Stalder argues that our everyday uses of the web fall somewhere between "semiotic democracy," where users are able to communicate freely and meaningfully and "spectacle," where those controlling the backend of our social media systems shape access and participation for all. In my reading of locative fiction and satirical user-generated content, I argue that each offers imaginative and meaningful forms of agency even as both are highly limited, in specific and yet complementary ways, by their reification of social exclusions. By identifying these complementary tensions, we can begin to read our way out of them.

The Silent History: The Ambivalence of Imagining an Unplugged Future

   The Silent History (app 2012, novel 2014) self-reflexively explores the

connections between literacy and space in its diegesis and its form. While it was initially

released as a serialized novel for iPads and iPhones, and then more recently published as

a print book,[9] this section studies the interplay between form and narrative in the digital

version. _The Silent History_ traces the imaginary history of a mysterious epidemic of

muteness beginning in 2011 and ending thirty three years later. The children developing

this condition in the narrative appear to be physically normal, and they are able to make

sounds, but they cannot speak. Moreover, they cannot process or understand language at

all. While doctors and government officials sometimes use the medical term "emergent

phasic resistance" to describe the phenomenon, most people throughout the narrative

refer to those who have it as "silents." _The Silent History_ is part of a larger contemporary

set of texts including Jennifer Egan's _A Visit from the Goon Squad_ (2010) and Gary

Shteyngart's _Super Sad True Love Story_ (2010) that explore a near future where language

begins to break down. In other words, these are narratives about a transition from literate

to post-literate societies. This section explores the intersection of literacy and place

within the central narrative of the story authored by Eli Horowitz, Matthew Derby, Kevin

Moffett, and Russell Quinn. Through its emphasis on spatial metaphors and multiple

perspectives, the narrative raises questions about exclusion and oppression—i.e. the

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[9] Kate Pullinger's novel _Landing Gear_ (2014) emerged out of her collaboration on "Flight Paths" (2007), a
work of digital fiction discussed in chapter 4. While the circumstances around each digital project and print
novel are unique, both of these transmedia works demonstrate the persistence of the print book even in
cases of innovative literary form.

"digital divide"—as it grapples with what future social and digital inclusion might look like.

The main story is told through a series of short accounts supposedly collected by archivists from the perspectives of parents, doctors, teachers, community activists, and others from all over the U.S. as they seek to come to terms with the increasing presence of afflicted people in their communities and as they struggle to find solutions to incorporate them into the social fabric or, at times, as they seek to isolate and exclude them.[10] The story takes place in the near future, beginning in 2011 and ending in 2041, and, throughout the narrative, attitudes towards the silents, ranging from fear, pity, distrust and admiration, continuously fluctuate and evolve. The different narrators' accounts are interspersed throughout the story, creating the impression of a diverse archive of oral histories. The connection between locative and/or mobile media and oral histories is not unique to *The Silent History*, as the various project surveyed by Jason Farman in his account of locative media demonstrate that documenting personal and communal histories has been a frequent source of inspiration for locative media experiments. An early example of this is Jeremy Hight, Jeff Knowlton, and Naomi Spellman's *34 North, 118 West* (2002), which Farman notes is often recognized as the first locative media narrative, although this characterization overlooks the rich history of influential location-based "telecommunications art" in the twentieth century, exemplified by works like Nam Jun Paik's *Good Morning, Mr. Orwell* (1984). *34 North, 118 West*

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[10] The story opens with a brief video from the archive collecting the histories that explains, "Thirty two years ago we began collecting stories from families and medical professionals who were first encountering a strange new silence in our sons and daughters. Our scope has been expanded from parents and pediatricians to everyone touched by this quickly spreading condition" ("Archive").

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takes place in a former railroad depot in downtown Los Angeles and contains fictionalized oral histories of early twentieth century railroad workers. Both *34 North, 118 West* and *The Silent History* mobilize oral history imaginatively, but the former is historical fiction while the latter is speculative.

In *The Silent History*, the language used by the various narrators to describe the spread of the silents draws from a wide range of sources, including medical rhetoric on autism as well as pop cultural rhetoric about zombies. An introductory video supposedly from the Department of Health and Human Services that makes up part of the prologue demonstrates the challenges institutions face in developing useful language, metaphors, and images for depicting uncertain or contested phenomenon. The video defines emergent phasic disorder and shows an animated map of first diagnosed cases between 2013 and 2019 in the U.S. As the animation moves from 2013 to 2019, what begins as a handful of scattered red dots soon spread all over the U.S., revealing a map blanketed with diagnosed cases in a fairly short amount of time. Throughout the video, haunting piano music synchronizes with text and data visualizations like the animated U.S. map. The video contains other visualization as well, including a diagram comparing the brain functionality of silents with neurotypical individuals and a floor plan of a school for silents. Notably, the various data visualizations in the short video becomes a way for institutions to create a coherent narrative about an inexplicable phenomenon, but ultimately they tell us very little, thereby underscoring the limits of emphasizing

quantitative, visualizable data points.[11] Instead, it is the short form text-based histories

that make up the bulk of *The Silent History* that give us a nuanced understanding of a

complex condition. In this way, the disjunction between data visualization and the text

that makes up *The Silent History* point to the value of language, imaginative writing, and

literacy more generally for developing meaningful knowledges.

The narratives contained in *The Silent History*, written from the point of view of

various parents, teachers, doctors, journalists, and entrepreneurs, are deeply concerned

with the relationship between public space and communication practices. In particular,

some of the narrators feel uncomfortable or disturbed seeing silent children and teenagers

interacting with one another in public spaces. From a place of bafflement, Kenule Mitee,

who sells food and skincare products at a stand at the beach in New York muses, "My

friends and I, at that age, were working jobs so that we could afford the clubs at night.

We would do anything. So I do not understand how these young people can spend whole

days wandering around without a purpose. Groups of them, roaming around, not saying

anything, making everybody uncomfortable. What kind of life is that?" (5.4). For others,

the presence of silents in communities is potentially sinister, including for Margaret

Lafferty, who insists, relying on a spatial metaphor, "They lack something basic. They're

not just different, they're…uncharted" (2.5). Margaret lobbies city council to put "Deaf

Child Area" signs up at every house where a silent child lives, even though silent children

are not deaf, and she makes it clear that this is primarily to protect the community from

these children and not the other way around. Margaret says, ominously, "And when the

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[11] See the discussion of Carolyn Guyer's *Quibbling* in chapter 3 for more on data visualization in literary works.

kids get older and if people start to see that they're more disturbed than we think, we'll know just where to go to find them and do what's in everyone's best interest, no matter how difficult it is for us, for them" (2.5). Both Margaret and Kenule express concern about the visibility of silents in public spaces, although only Margaret responds to the "uncharted" or unknowable aspect of the children by aggressively using language to map their physical whereabouts. Margaret thus tries to wrest control of these spaces from the silents that physically occupy them with signs intended to exclude and ostracize.

As the story goes on, the silent people, because of their outsider status and their disinterest in conforming to social norms, often end up living on the margins of public spaces, amidst the detritus of the hyperindustrial urban landscape. Many silent people in the story, including a teenager named Spencer, are taken away from their homes or sent away by their parents to halfway houses before eventually drifting towards squatting in large groups in abandoned urban spaces, like a warehouse full of beehives in Spencer's case. August Burnham, a doctor visiting the warehouse and other silent communities to offer medical care describes the lice, bedbugs, and general filth of these arrangement, noting that "they each had their own incredibly acrid odor, but they didn't seem fazed by this or interested in any of the hygiene products I left for them" (10.3). The level of filth of the silents only highlights their status as undesirable, unassimilable, and unwelcome outsiders in the eyes of the general population. At the same time, others like Patti Kern, a former cult member who organizes a commune in Northern California, reveres the silents, referring to them as "native speakers" (13.5). In this way, Patti reverses narratives of disability or bodily or neural otherness by positing the silents as models for talking

people, instead of the other way around. The idea of the silents as "native speakers" underscores the simplistic nature of cultural constructs like "disability," calling to minds recent efforts by critics and activists who have begun to reframe discussion on conditions like autism outside of the paradigm of disability and towards a more inclusive one of "neurodiversity." For instance, Ann Jurecic points out that prejudices against people with autism are "fueled by a profound discomfort with and fear of neurological difference" (422). Focusing on the composition classroom, Jurecic grapples with how we might account for cognitive differences between students without resorting to biological determinism and without dismissing social inequalities that affect student learning. At the same time, she reads celebrated autistic activist and professor Temple Grandin's writing as amateur-ish, explaining, "her writing is 'autistic' in large part because, even after she has written six books and dozens of articles, she still cannot consistently define a line of argument, guide a reader from one point to the next, or supply background for references that would otherwise be unclear" (429). Jurecic's harsh critique of Grandin's prose reflects the tension in the field of composition studies between convention and clarity on the one hand and inclusivity and inventiveness on the other. The silents in *The Silent History* are symptomatic of these debates within writing studies, a field trying to develop new ways for theorizing a range of forms of expression while at the same time responding to institutional and cultural pressures about accepted forms of academic, professional, and even informal expression.

Although there are mixed messages about how we should think about the silents from different narrators, from Margaret who views them as threatening to Patti who

considers them exemplary, ultimately medical narratives of illness come to dominate the discussion, especially once a "cure" is developed. Doctor August Burnham invents the Soul Amp, an implant that connects the brains of silents to a networked database, enabling them to speak. Upon trying it out on human test subject Calvin Anderson, Burnham has the following realization: "But when I saw Calvin Anderson speak for the first time—on his own using his own words to express his own desires—it suddenly made perfect sense. My mission wasn't just to give the silent language—I had to give them back their souls" (13.2). Dr. Burnham emphatically insists on Calvin Anderson's agency, repeating the adjective "own" to highlight that Calvin has suddenly become more in control of himself. In fact, that is not necessarily true. When Calvin decides to start calling Burnham "Dr. Burnt Ham" as a subtle form of protest against being made into a human test subject, he finds that he is soon physically unable to refer to Burnham that way because Burnham alters the settings of the Soul Amp so that Calvin can no longer intentionally say the name wrong. With so much power and so little accountability, Dr. Burnham calls to mind Dr. Frankenstein or Dr. Moreau who go too far in their quest to create humans in a narrow mold. The lofty—even colonialist—language Burnham uses regarding his "mission" and the obligation to "give them back their souls" suggests that the rhetoric of techno-science has run amok here as medical science and technological innovation are posited as absolute truth. Moreover, Burnham's apparently moral argument for the need for a marginalized group to become literate in the dominant language resonates with colonial discourses of education as surveyed by Gauri Viswanathan. Viswanathan's study of nineteenth century colonial curriculum in India

reflects how the presumably positive or empowering value of literacy can also be used oppressively, as part of projects of cultural imperialism and as a "mask for economic exploitation" (20). In a similar way, Burnham's rhetoric invites us to interrogate the morality of his perspective as his god-like view calls to mind Donna Haraway's argument that all knowledge is partial and situated, and that attempts to speak from a birds-eye-view reflect patriarchal and capitalist assumptions about knowledge. Burnham does not recognize his own knowledge as thus "situated" or contested, although the structure of the narrative itself, which places Burnham's narrative alongside a range of other voices, undermines his claims for objectivity or truth.

Moreover, Burnham's belief that the Soul Amp is inherently humanizing and able to provide users with agency and autonomy are demonstrably false as newly implanted silents often have difficulty expressing themselves accurately. This problem with the Soul Amp points to the larger problem of language in general, in spite of Burnham's assumptions about the liberatory power of language: that words do not always allow us to fully express our ideas, desires, and emotions. Because the implant is connected to a networked database, it remains unclear who is ultimately in control or at least what the balance of power is between the implanted person and Dr. Burnham's network. The ambiguity around agency with regards to implanted silents resonates with early computing experiments involving human impersonation like Alan Turing's imitation game or Eliza the computer therapist, discussed in chapter 2, as the narrative asks us to consider how we can understand agency when people like Calvin Anderson can only speak by connecting with a database that they ultimately do not have control over.

Notably, very few implanted silents get to narrate their own stories, and, of course, non-implanted silents are inherently unable to represent themselves through writing since they are unable to learn language. *The Silent History* thus meditates on the problem of the limits of self-representation, exploring what it means for the silent to be represented through second hand accounts as Calvin Anderson is one of the only former silent people who we hear a direct testimonial from throughout the narrative. The inclusion of Calvin's history reminds us that *The Silent History* is always only a partial history. As the first silent to receive an implant, Calvin describes his attempts to approach a woman at a bar and strike up a conversation. He explains, "I walked up to a woman and attempted to tell her how much I admire her compassionate restraint in dealing with her friend, whose relentless self-pity seemed to frustrate and depress her. But what came out was something along the lines of, 'I bested your wellness clinic, you fellow'" (13.5). Calvin's narration of this encounter reveals the failure of language or the difficulty of gaining control over one's own self-expression, even when one technically is able to speak.

Moreover, in spite of claims about curing illness and/or facilitating increased agency and self-expression, the implants become an unapologetic site for profit making. After the implants go into wide use, Doctor Burnham's business partner Prashant Nuregesan describes the "suite of user-configurable mods that would allow anyone with an implant to customize their speech—or the speech of their children" (14.1). The language of tech innovation—"a suite of user-configurable mods"—leads to a flippant tone with regards to key questions around agency and self-expression. The language of user-configuration and customization suggest that individuals would have increased

control over their communication style, and yet there is a slippage between whether individuals control themselves, or whether parents are able to control their children's speech without their consent. These "mods" include an accent mod, a famous voices from history mod, and a content-blocker mod. Prashant notes, "there was some controversy surrounding the content-blocker mod that allowed parents to gate their children's speech, which okay, some people abused, but you're always going to get hackers and griefers no matter what you release" (14.1). The notion of a content-blocker preventing children from using certain words or even expressing certain ideas may seem far-fetched on the one hand, but, on the other, it mirrors present-day practices of parents, schools, and workplaces in the U.S., and governments in places like China, who filter and block websites to prevent children, students, workers, and citizens respectively from accessing certain content online. At the extreme end, in the case of government censorship in China, these practices raise grave concerns about human rights, but even at the less immediately politically impactful end, in terms of blocking children from accessing certain websites, these practices remain potentially problematic and at times ethically ambiguous.

Prashant dismisses concerns around the implications of the content-blocker mod vaguely, claiming that "hackers and griefers" are inevitable, eliding the fact that blocking implantees from saying certain things or controlling what voice or accent they use to say it is the clear purpose of these products. Prashant's free market libertarian ideas come without ethics, in the sense that anything should be sold as long as people will buy it. These encouraging sounding "user-configurable mods" along with the implant offer the

promise of agency, autonomy, and self-expression even as they can in fact lead in the opposite direction, where these promises become illusory and individuals end up giving up control over themselves rather than regaining it. Metaphors for agency and control emerging in the narrative resonate with concerns about Apple products—the exclusive platform for *The Silent History*. For instance, Lori Emerson argues that while recent Apple promotional materials rely on the rhetoric of freedom and empowerment on the level of the interface, in terms of the hardware and software itself, individuals, who in the past had more ability to make changes to their own computers, are now disempowered and discouraged from tinkering with or modding their own devices. In this way, according to Emerson, computer users are positioned as passive consumers—"audience members watching their devices perform magic tricks before their very eyes"—rather than as active participants in producing digital texts and technologies (19). While one might argue that Emerson over-privileges hardware and software at the expense of the power of words and images on screen, she also usefully points to the problem of consumerism and technologies of self-expression—the same problem affecting the implant mods—where marketability can often supersede ethics.

In this way, because the implant stands in for our Apple and other computing devices, the silents who refuse to be implanted are choosing to embrace all of the advantages and disadvantages of an "unplugged" life. The technological metaphor extends to the fact that the silents are generally "off the grid"—living in abandoned warehouses, or in a commune in a remote area in California. In this way, the silents stand in for the neo-luddite tendencies that coexist alongside the drive for ubiquitous

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computing. So, for instance, in the last few years Google's extensive street view mapping

project has involved collecting images of every street with cameras; it has also come to

light that other information has been and continues to be collected, like the names of

wireless networks as well as passwords and other data.[12] Alongside these forms of

intensive and invasive digital mapping of space, some urban coffee shops have

intentionally become "no Wi-Fi" zones, reflecting a push by small groups to create

spaces outside of digital networks that they have little control over and to potentially

imagine a future outside of the one companies like Google imagine for us. *The Silent*

History presents the silents as a group similarly resisting the pull of networked culture

and living with both the advantages and major drawbacks of doing so. Questions of

privacy and personal choice come to the forefront in the narrative when apparently well-

meaning lawmakers decide that all silent children under seven must be implanted (14.5).

The preemptive and broad nature of this decision in some ways resonates with present

day debates about childhood vaccination for preventable diseases like measles, although

in *The Silent History*, decisions about the implant are much more ambiguous: is requiring

all children to be implanted ethical? Is it a matter of public safety, quality of life, or

something else? Making the implant mandatory potentially allows for increased

autonomy and self-expression, although as noted above, there is also the risk of increased

policing and control, as well as flattening of difference and coercing conformity.

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[12] This phenomenon is discussed in some detail in the 2012 *New York Times* article, "Google Privacy Inquiries Get Little Cooperation." In a personal correspondence, Steve Anderson termed this kind of data collection "wifi-landscaping," referring to the mapping of geographic space by companies like Google through the locations of personal and business wireless networks.

The decision to require all children to be implanted is a moot point by the end of the story, when the central server controlling the implants is destroyed, and the silents are back to being silent again. To complicate matters further, the silence mutates and begins to spread virally, so that 75% of talking adults ultimately have the virus dormant within them, knowing that it's only a matter of time before they lose the ability to process language, which of course is why the oral history project that serves as the pretense for *The Silent History* needs to exist, even if it is unknown if anyone in the future will actually be able to read it. If the silents represent forms of illiteracy or lack of access to technologies of reading and writing, then the biological virus depicted in the story works as a metaphor for the circulation of content in digital media networks. The popular phrase "going viral" refers to the phenomenon of content that is removed from its local context and viewed or read widely across digital networks. In *Spreadable Media* (2013), Henry Jenkins et al. take issue with this biological metaphor, arguing that "there is an implicit and often explicit proposition that the spread of ideas and messages can occur without users' consent and perhaps actively against their conscious resistance; people are duped into passing a hidden agenda while circulating compelling content" (18). Jenkins et al. instead argue for "spreadability" as an improved metaphor for media circulation as it accounts for user agency; they write, "in this emerging model, audiences play an active role in 'spreading' content rather than serving as passive carriers of viral media: their choices, investments, agendas, and actions determine what gets valued" (21). Within the context of *The Silent History*, the viral metaphor points to the dangers of large-scale adaption of technologies that users do not understand and cannot control, as we risk

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losing our ability to communicate altogether. Hari Kunzru's *Transmission* (2005), a novel about an Indian tech worker who creates a computer virus that mutates and creates global havoc, likewise takes up the viral metaphor. The virus in *Transmission* seriously delays processes of global neoliberal capitalism for a time, so in this way, it functions as both a reprieve and a disruption. Like *The Silent History*, *Transmission* concerns itself with the problem of ever communicating—or transmitting our thoughts—effectively, especially in light of transformations in media technologies that promise to help us communicate more effectively even as they reify power asymmetries and create new forms of global injustice. Just as *Transmission* raises concerns about global digital communication networks, *The Silent History* also questions our privileging of digital literacy and literate communication, by positioning the silents as a dysfunctional but potentially inspiring model for attentive, small-scale, unplugged communication that—because it does not rely on words but rather subtle facial expressions to convey meaning—creates an ethic of bodily care that does not seem to exist amongst the speed and noise of the talkers.

Reading Locative Text: Urban Space and the Digital Divide

Moving from the central narrative, I turn to the user-generated locative narratives, called "field reports," that serve as site-specific supplements to *The Silent History*. These location-restricted "field reports" raise questions about ubiquitous networked technology and use of public spaces that are also depicted in the central narrative. Readers can contribute these location-based "field reports" that expand upon and develop the diegetic world to the creators of *The Silent History* who ultimately decide what user-generated

content will be included.[13] Because these field reports are linked to GPS software, readers must travel to the appropriate location, throughout the U.S. and "on five continents,"[14] in order to access the corresponding content. The location-based stories are primarily based in the U.S., the UK, and Australia, although there are two stories in India, one each in China, Japan, and Mexico, and one, amazingly, in Antarctica. Through the emphasis on its transnational reach, the description of *The Silent History*'s location "on five continents" gestures towards a techno-cosmopolitanism, although this tends to be heavily focused on Anglophone countries, and, despite its experimental digital form, this geographic distribution mirrors the contemporary global circuits of print literature in English as described by critics like Sarah Brouillette and Graham Huggan.

Unlike collaborative writing projects like "A Million Penguins" discussed in chapter 4, where anyone can write, edit, or erase content without any clear hierarchies or governance, *The Silent History* user field reports are vetted according to detailed guidelines so that they fit into the futuristic narrative world and have a clear connection to their GPS location before they appear in the story. The seven page "Field Report Guidelines" instructs contributors that "the location must be an essential part of the narrative" and that the field reports should "give the reader several points of contact between text and place" (3). This attentiveness to location is notable in the published field reports, including "Dragon," a field report set in Griffith Park in Los Angeles that

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[13] Of the eight field reports I read in the greater Los Angeles area, two were written by Kevin Moffett, one of the authors of the main narrative. Four were written by Michael Andreasen and two by J. Ryan Stradal, demonstrating that like many other participatory projects on the web, although it is officially open to any interested participants, a smaller group of people end up writing the majority of stories.

[14] This is according to an explanation by the creators of the story on thesilenthistory.com/faq.

centers its action around graffiti art at a trailhead in the park. Other Los Angeles based

field reports connect text with location by incorporating local landmarks, like a chain-link

fence full of colorful padlocks or a steep residential street overlooking the Silverlake

reservoir, into the narrative.

Due to the locative technology that makes these field reports readable only to

those who are within about thirty feet of a specific site, this user-generated content

requires effort to access, potentially contradicting prevailing wisdom about the tendency

for mobile technologies to increase our access to information. At the same time, these

field reports demand an intimate engagement with place, and they synchronize our

mobile reading practices with our lived environment, so that spontaneous sensory

information becomes part of our reading experience. The GPS anchors thus materialize

and afford what Donna Haraway might call "situated knowledges," that are responsive to

local sites nevertheless active in global networks. Through its meaningful inclusion of

user-generated content alongside a professionally authored narrative, *The Silent History*

exemplifies what Henry Jenkins calls "convergence culture" where amateur and

professional creative production are in dialogue and complement one another. However,

this is actually a complex negotiation as the "Field Report Guidelines" demonstrate the

difficulty of creating a cohesive work through participatory methods. For instance, with

regards to the appropriate tone for field reports, the guidelines caution potential

contributors, "You are a reporter, not a student in a writing workshop; flowery similes or

explicit ruminations on the nature of language should be kept to a minimum" (5). The

solution to opening the story up for broad participation, at least in theory if not yet in

practice, while still maintaining a cohesive narrative world, is creating extensive and specific guidelines for contributors to follow. However even as these guidelines create the grounds for participation, they likely also dissuade some interested contributors due to their complexity.

In order to access the field reports, readers must be within a range of about 30 feet. Most of the field reports stand on their own, but two of the Los Angeles area field reports placed only a few feet away from one another are in direct dialogue. Inspired by a number of signs outside of Public House, a Los Feliz bar, warning that valet parking closes at midnight, the two field reports—"Carbon Fiber" and "Keys"—tell about an encounter between two men in front of Public House from different points of view. "Carbon Fiber" relates a misogynistic narrator's attempts to pick up a woman named Christy and quickly take her home before she changes her mind. The narrator offers matter-of-fact advice about hook up culture, noting, "and that's another thing most guys forget, maybe the most important thing: you've gotta remember her name." The narrator becomes frustrated by the valet's unresponsiveness to his request for his car, as he explains "you have to remember that the whole point of valeting was to *save* time, and now here we are, stalled, losing minutes, Christy probably already balking, all because this dude is stonewalling me." This is happening several minutes after midnight when the gate is locked and the valet stand is closed. Noticing the numerous signs warning about the closing time, the narrator becomes increasingly angry with the valet, who is silent and staring at him blankly. The complementary narrative, "Keys," is from the point of view of the valet's uncle, who sees the interaction escalating and realizes that the man leaving

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the bar does not know that his nephew is silent and cannot understand his request for his car. "Keys" references the signs as well as an Italian restaurant two doors down from the bar. These two stories exemplify the potential of the location-based "field reports" to situate a broader narrative within a local context so that readers can picture the diegetic world of *The Silent History* playing out in their own city. In this case, the reader then might consider what kinds of jobs silents might hold in Los Angeles and how they might experience the sprawling, car-dependent metropolis, since valet parking is tied to questions of class and urban infrastructure specific to desirable Los Angeles neighborhoods like Los Feliz. Both stories use the valet parking signs as a jumping off point, but they read the signs very differently based on their respective social positions, allowing us to think about local forms of social stratification within the context of transformations in literacy.

Because both "Carbon Fiber," "Keys," as well as three other field reports take place on or just off of Vermont Avenue in Los Feliz, a busy pedestrian area, reading them on the sidewalk is something of a challenge. It is much easier to read stories like "Dragon" or "Plummet" that take place in residential neighborhoods or park spaces. Unlike previously mentioned locative media projects like *[murmur]* or *34 North, 118 West* that are narrated through audio, *The Silent History* requires readers to read text as they navigate the city. Of course, many people in urban spaces are constantly looking at their mobile devices, so in this way readers of the field reports blend into their environment. Reading the locative field reports can feel like a scavenger hunt, and they allow readers the opportunity to look closely at interesting little details of the city—"a

skinny dumpster" and a row of evenly spaced elm trees[15]—that might otherwise be

overlooked. While traveling to the various sites and looking for the right spot can be a

highly social activity, it is quite difficult for two or more people to read a story together

on a city street. The tension between the values of length and brevity plays out in the

guidelines, which tell prospective writers, "reports should be 250-500 words. Keep in

mind that the reader will generally be standing, often outdoors, so the attention span may

be somewhat limited; on the other hand, readers will have specifically traveled to the

particular location, so the report should be substantial enough to honor that effort" (5).

Although *The Silent History* is a literary work, its use of locative technologies

gives it commonalities with many of the location-based games discussed in Jane

McGonigal's *Reality is Broken* (2011), a book that proposes gameplay as a model for

engaging individuals and communities in effective collaborations for real world problem

solving. One of the location-based games described by McGonigal is her own creation: a

controversial game called "Tombstone Hold 'Em" poker, where players go to a cemetery

and play a variation on "Texas Hold 'Em" poker that incorporates gravestones.[16]

Drawing upon positive psychology, a branch of psychology focused on how to maximize

human happiness, McGonigal argues at length for the many benefits of this game to

players, who "widely report being able to think about death and lost loved ones in a more

positive way after playing" (198) as well as the potential benefits to the cemeteries

themselves and the communities living around them. Nevertheless, she also notes the

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[15] Both of these details come from field reports set in the Los Feliz neighborhood of Los Angeles. The "skinny dumpster" appears in "Entrance Fee" and the "elm trees" appear in "Treehouse."

[16] See McGonigal pgs. 198-200 for instructions on how to play.

strong backlash against this game, which many people found to be offensive and disrespectful. This controversy epitomizes some of the key problems of locative narrative and gameplay: from McGonigal's perspective, "Tombstone Hold 'Em" offers an important opportunity to reclaim and revitalize apparently empty public space, while from the alternative perspective, the game disregards the symbolic, communal, and historical meanings of the cemetery in favor of personal happiness. While the game might be beneficial to the players, as McGonigal turns to positive psychology to repeatedly claim that people who think about death are happier than those who do not, how do we account for the people who are visiting a cemetery to pay their respects while a game of "Tombstone Hold 'Em" is going on?[17] And this points to a larger question related to both games and locative media apps: how do we account for people whose lives are being game-ified or turned into objects for textual analysis without their consent?

Even as games like "Tombstone Hold 'Em" and literary apps like *The Silent History* strive to increase our social interactions in physical space, Mizuko Ito, Daisuke Okabe, and Ken Anderson suggest that using mobile devices like portable music players in fact creates a "cocoon" effect, where individuals create "a private territory within the confines of urban space" (74). In this way, these devices are not inherently social as they are frequently used to intentionally block out other people, creating privacy within a crowded urban environment. In fact, locative narratives like *The Silent History* that seek to transform urban spaces into texts through the use of proprietary Apple products like

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[17] McGonigal goes to great lengths to point out that most cemeteries are neglected and receive far too few visitors, and she also argues that many people play in historical cemeteries. Still, it is certainly possible that mourners could arrive while a game is going on.

iPads and iPhones have the potential to increase "cocooning" in public spaces, heightening the visibility of the digital divide and creating the grounds for spectacle as described by Felix Stalder rather than for broad, diverse, or meaningful participation from a wide range of individuals.

But as inexpensive mobile devices and free wireless networks are becoming increasingly available, is the digital divide still a useful paradigm for theorizing the relationship between technology and social inequality? Joseph Straubhaar et al. describe how the term "digital divide" was popularized in the mid to late 1990s under the Clinton administration to refer to "a gulf in access to and skills in the use of computers and the Internet, conceived in terms of differentials by minorities, women, older people, rural residents, and those living below the poverty line" (19). The related term "information inequality" was used by Herbert Schiller in his 1996 book for similar ends, although "information inequality" characterizes a broader problem: the erosion of the common good in light of widespread and short-sighted privatization of public goods. Schiller describes the 1990s as a time where "every facet of living is being, or has been, transformed into a separate, paid-for transaction. This development is especially observable in the media/informational sphere…Simply stated, the informational crisis— denial of access and debased messages and images—deepens social inequality and intensifies the general social crisis" (xv-xvi). Perhaps because of its more limited focus and apparently more readily achievable aims, the terms "digital divide" has caught on more than "information inequality." In fact, from the early 2000s to the present, news

stories and opinion pieces about the true nature of the digital divide have proliferated in major national news publications.

While concerns about the digital divide initially focused heavily on providing universal access to computers, the conversation has recently shifted towards technical skill-building and media literacy as computer and mobile media access is proving to be insufficient for producing a more egalitarian society.[18] In Straubhaar et al.'s insightful book length study of the digital divide in Austin, Texas, entitled *Inequity in the Technopolis* (2012), perhaps to avoid the now dated term "digital divide" and the ahistorical connotations around it, they argue that even as Austin became a technopolis in the last several decades, African American and Latino residents of Austin were largely left behind in a way that mirrored the history of sanctioned racial segregation in the twentieth century in Austin and that continues on as de facto segregation into the present day. For critics like Straubhaar et al, as well as Virginia Eubanks, who studies the digital divide as it affects low income and working class women, the digital divide and the social injustice that causes it cannot be solved primary by giving people more access to technology; in fact, Eubanks points out that many of the upstate New York women she writes about have frequent interactions with technologies, where because of their gender and social positions, the technology they experience on a daily basis is "invasive, intrusive, and extractive" (24). Both Eubanks and Straubhaar et al. argue that simply teaching technical skills is also not ultimately useful, as, according to Straubhaar et al.,

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[18] The following *New York Times* articles exemplify this shift in debate around the digital divide: "Blacks Turn to Internet Highway, and Digital Divide Starts to Close" (2006) reflects optimism about computer access as the key to closing the digital divide. On the other hand, "Wasting Time is New Divide in Digital Era" (2012) suggests that computer access does not automatically confer digital literacy onto users.

those experiencing digital inequities need the tools to develop "techno-capital," which they describe as "a specific form of cultural capital encompassing the acquired knowledge and skills to use information technologies in ways that are considered personally empowering and useful" (8). Eubanks likewise argues for an emphasis on what she terms "popular technology," which entails "shifting from vocational approaches that teach technological skill to popular education approaches that focus on nurturing critical technological citizenship" (xx). Both Straubhaar et al. and Eubanks argue for the importance of thinking deeply about how social and historical inequality based on race, gender, and social class affect how people feel about technology and to what extent they are willing and able to use it for meaningful self-expression and practices of citizenship. Each study also explores local attempts at digital inclusion, in Austin and upstate New York respectively, that reflect the complexity and difficulty, but also the value, of actively including historically marginalized populations in decision-making about technology.

While Straubhaar et al. and Eubanks explore the digital divide primarily in terms of race for the former and gender and social class for the latter, people with disabilities are not necessarily explicitly included in conversations on the digital divide. Some critics in the digital humanities like George Williams, drawing upon conversations in digital design, have focused on thinking about digital inclusion in terms of "universal design." Williams contends that "universal design," or "the idea that we should always keep the largest possible audience in mind as we make design decisions, ensuring that our final product serves the needs of those with disabilities as well as those without" (202) is

central to developing broadly inclusive and readable digital projects. In this way, Williams suggests that designing with a diverse audience in mind leads to more thoughtful, better designs for all. The push for universal designs reflects a tension in the history of digital media where on the one hand new hardware and software have been touted as offering those with disabilities unprecedented access to collected knowledge while on the other hand digital initiatives such as online courses offered by Harvard and MIT have not made necessary accommodations for disabled students such as closed captioning educational videos, precipitating recent lawsuits.[19] Notably, the lawsuit filed by the National Association of the Deaf against Harvard uses the following spatial metaphor to describe the exclusion of deaf students: "Just as buildings without ramps bar people who use wheelchairs, online content without captions excludes individuals who are deaf or hard of hearing." This language emphasizes the extent to which web-based initiatives such as online courses not designed with the broadest possible audience in mind are complicit in excluding disabled individuals, and that while we might assume that media innovation would lead to increased access, that is not always the case, both in terms of the above-mentioned online courses, but also in terms of proprietary platforms like the iPad and iPhone where *The Silent History* must be read. While universal design may be useful for allowing some with disabilities more opportunities for digital participation, as a technological solution it cannot change prejudice against individuals with disabilities. As Eubanks points out, not only are technologies not the answer to society's ills, they can often create more injustice. She argues, "massive investment in

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[19] Tamar Lewin's February 2015 article in the *New York Times* explains the controversy.

science and technology without simultaneous investment in a more just society is an investment in *increasing* political and economic inequality" (xvi). In this way, I contend that critical conversations about the digital divide as well as information inequality remain important decades after the terms were coined, especially in light of the current push towards "ubiquitous computing."

Jason Farman and Lori Emerson both discuss the emerging phenomenon of "ubicomp," short for ubiquitous computing, where hardware and software industries are focusing on weaving computing into everyday life and making computing interfaces increasingly invisible. Touch screens on iPads that are meant to be intuitive reflect this trend. At the same time though, Emerson points out that even as companies like Apple strive to make us feel closer than ever to our devices, we are actually increasingly further away, as our ability to modify, hack or create new hardware or software, by say, building an app, requires advanced technical skills. This tendency for computing devices to be increasingly designed for consumption is not new; Sherry Turkle points this out as well with regards to the 1980s in *Life on Screen*, when she describes the move from hobbyists tinkering with hardware to everyday users interacting at the interface. For Emerson, agency and meaningful forms of writing are tied to our ability to determine our writing media at all levels: hardware, software, and interface. She points out that we have very little control over the hardware and software that we use; in this way, I suggest that we are like the implanted silents hooked to Burnham's database: we can express ourselves, but only partially, and we are unable to alter or even access the database that shapes our ability to speak.

For other critics, openness, i.e. open source software, is the key issue for shared governance of digital tools that might produce more justice and equality. For example, critics like Christopher Kelty continue to advocate for the importance of open source software protected by copyleft licenses that ensure open access in the future. His concern is certainly relevant here, for *The Silent History*, even as it explores questions of space and mobility, is constrained by the fact that it can only be accessed via iPads or iPhones. As previously mentioned, in an attempt to potentially mitigate this constraint, the central narrative, although not the location-based field reports, was also published by Farrar, Straus, and Giroux as a print book in 2014.

Due to their inaccessibility or at least the amount of work that goes into accessing them, the location-based field reports in *The Silent History* have generated complaints from readers. The top comment on *The Silent History* in the Apple store states, "while I appreciate the IDEA of the location-based field reports, I absolutely hate that there are no such reports anywhere near my area (the South in the US) and that I will never be able to travel to any places where they do exist due to my being disabled."[20] In this way, questions of disability and access circulating in the central narrative resonate closely with the real world experience of being unable to read parts of the text. The platform for *The Silent History* and its mode of circulation thus amplifies the digital divide dramatized in the narrative as it explores how those who are networked and those who are unplugged might coexist and even benefit from one another. Through the process of implanting all of the silents and then having the implants fail, making the whole plan massively

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[20] This app store review, written by Clotaire on July 3, 2013, is titled "Love the concept and story but…"

backfire, *The Silent History* considers the dangers of technological dependence and technological solutionism for social problems (i.e. the exclusion of the silents cannot be solved by inventing a device).

In spite of some of its problems, *The Silent History*, by virtue of it being a literary work, allows us to explore metaphors for digital media use. However, metaphors are not inherently ethical or productive—they can produce empathy but they can also diminish it. For instance, Ann Jurecic argues that in our everyday discourse, the term "autism" is used far beyond the bounds of its definition as a medical condition; instead, it stands in as "a disturbing new metaphor for the postmodern self, disengaged from the world and from others" (422). Metaphors deployed in this way can be dangerous and dehumanizing; on the other hand, metaphors can help us to imagine what is outside of our own experiences. The prologue of *The Silent History*, from the perspective of Hugh Purcell, the Executive Director of the archive in Washington D.C. collecting these oral histories, alludes to this problem in his discussion of the work of gathering stories. Referring to the beginning of the silent epidemic, he writes, "Most of what I recorded was speculative third-hand info, wispy urban myths about how silence was a plague, or a conspiracy, or some sort of vague metaphor." The idea of a "vague metaphor" is key here as *The Silent History* self-reflexively engages with the idea that we need metaphors for thinking through problems of digital media, access, and mobility, and that works like these can give us space to imaginatively engage with these questions from a multiplicity of perspectives as we think about how media technologies can alter our lives for better and for worse, often both at the same time.

This becomes particularly important by the end of the main narrative of *The Silent History*, when the majority of the population is poised to lose their ability to understand language. Although Hugh points out that non-silent people cannot know what it's like to be silent, and that in this way the history, in spite of its diverse narrators, lacks the key perspectives of silents, he notes, "But of course, it's this experience that waits for us all. It's inside our brothers and sisters, daughters and sons and lovers. The very existence of this condition demands a reexamination of what exactly it is that makes us human. This document presumes nothing about the future; it is strictly a record of the past, of what we looked like before, and how we got here." He then poses a key question: "Are there wilder, more verdant fields out beyond the boundaries of language, where those of us who are silent now wander?" This is the question of how language and literacy are tied to our very value as humans, and what it can mean to imagine a future without it. At the end of the narrative, it is Calvin Anderson, the first implanted silent, whose voice we hear in the epilogue. Calvin in this way is the hero of our story as he manages to bridge the gap between talkers and silents, suggesting alternative paradigms that embrace neurological diversity and a multiplicity of communication styles as well as bodily, oral, and textual literacies.

Digital Satire: Feminism, Commerce, and Self-Reflexivity on Amazon

Turning from the fictional archive in *The Silent History*, this section considers an archive of satirical product reviews posted on Amazon. Both *The Silent History* and satirical product reviews are suggestive of the power of different models of collective

literary practices; while *The Silent History* models innovative place-based collaborative fiction, satirical reviews on Amazon exemplify how popular practices of literacy attempt to remap and recontextualize commercial content online. Although it started off as an online bookstore, Amazon now sells everything under the sun, including many unusual or highly specialized products, and it is one of the most visited sites on the web.[21] Amazon is symptomatic of the kind of universalizing attempts at spatial mastery explored in terms of the speech implant in *The Silent History* as they are a company that seeks to constantly increase their logistics and cloud computing services so that they can distribute products rapidly and so that they can become a big box store that is constantly accessible, somehow located everywhere and nowhere. Like the extensive Google mapping projects mentioned in the previous section, Amazon in this way is deeply invested in mastering and remapping space through logistics, and these product reviews, like the locative field reports in *The Silent History*, function as an attempt by users to gain some control in light of highly asymmetrical access to and power over data, storage, and software.

Amazon prompts users to "write a review" for any of the products that they sell, and the majority of reviews appear to be attempts to praise, criticize or share information about a given product according to a set of now familiar generic conventions of online reviews.[22] User-generated reviews are common to most retail sites, from Nordstrom to Etsy, and they are also the entire focus of aggregation sites like Yelp for restaurant

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[21] According to Alexa Internet, a company owned by Amazon that collects web traffic data, Amazon, as of February 7, 2015, is the seventh most visited website in the world.

[22] Writing straightforward Amazon reviews is a widespread practice in and of itself. It can even serve as a public relations move for someone like American politician New Gingrich, who as of February 2015, has apparently written 156 book reviews on Amazon.

reviews or Tripadvisor for hotel reviews. Because user-generated reviews are highly

influential on consumers and have real economic consequences, there is a clear incentive

for industries to buy favorable reviews, also known as "astroturfing," in order to

influence people. As a result, reviewers—both amateur and paid—tend to rely on

narrative techniques in order to implicitly demonstrate their authenticity, although other

features, like the Amazon designation of "verified purchase" on some reviews adds

another layer of verification within this economy of authenticity. On all of these kinds of

sites then, many of the reviews embrace narrative techniques, telling a story about a

product or experience with a beginning, middle, and end, and using descriptive and

metaphorical language to describe that experience. Satirical reviews on Amazon flip the

industrial practice of astroturfing on its head by offering positive reviews—although

some are negative as well—that intentionally misunderstand the product being sold or

that offer exaggerated praise for the bizarre premise of a product like the BIC Cristal For

Her Ball Pen, a ballpoint pen marketed towards women discussed below. While the BIC

pen becomes a site of satire around gender relations, other reviews for products like a 5

pound bag of Haribo Sugar Free Gummy Bears or the "Mountain Three Wolf Moon

Short Sleeve Tee" shirt critique other cultural anxieties like consumerism and excess in

the case of the former and industrial appropriation of youth cultures of cool in the case of

the latter. In this way, even the reviews that lack political immediacy or an easily

identifiable ideological perspective tap into larger cultural anxieties.

   Satire is a rhetorical form that dates back to classical Greece, although it was

especially prominent in British literature of the long eighteenth century in the works of

writers such as John Dryden, Jonathan Swift, and Alexander Pope. Through a study of

various definitions of satire, Kathryn Hume suggests that satire is typically characterized

by making an attack on someone or something and by having "humor or wit" that

"modifies the attack and differentiates it from hellfire sermonizing or foul-mouthed

name-calling" (305). In addition to these two essential elements, Hume notes seven other

potential criteria that may be present,[23] including "the author's glorying in his or her

literary performance," which is a key element of the satire discussed below. Hume's

essay looks at satiric modes in the postmodern novel, whereas most contemporary

scholarship on satire focuses on eighteenth century satirists, and there seems to be little

interest beyond this scope. Dustin Griffin's *Satire: A Critical Reintroduction* (1994)

remains one of the only book length studies of the genre in the last several decades.

Griffin calls for a reexamination of the genre as he suggests that earlier scholarship from

the mid-twentieth century oversimplified the moral ambiguity and complexity inherent in

satire by reading it from a binary framework. In this way, his work is suggestive of the

layered, ambivalent perspectives we might find within satire. Hume's essay emerges

from this more critical perspective on satire, and she proposes the term "diffused satire"

to differentiate the satiric elements in postmodern novels from the apparent moral

certainty of "hard satire" (302). For Hume, diffused satire is best equipped to operate

within the "moral and ontological uncertainty" characteristic of postmodern writing

(325), and that is why it is more often found than "hard satire" in contemporary

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[23] The criteria are as follows: 3) that the author "glory[] in his or her literary performance," 4) that the satire include elements of hyperbole or fantasy, 5) that there be a "hard kernel we are asked to recognize as moral or existential truth," 6) that there be an expression of disgust, 7) that the tone be one of "inquiry rather than confident condemnation", 8) that some kind of moral standard anchors the critique, 9) that the author set out to change the audience's behavior (Hume 305).

postmodern fiction. In contrast to Hume's identification of "diffused satire" as a primary

form of satire in contemporary literature, the Amazon product reviews discussed here

potentially have more in common with historical forms of satire in that they are often

premised on a sense of moral certainty. Additionally, they continue on the long history,

dating back to classical Greece and continuing into the eighteenth century, of satire as

public performance. Griffin observes, "hostile commentators have often suspected, with

eighteenth century critic Edward Burnaby Greene, that satire is designed rather 'to shew

the wit of the satirist, then the means of the delinquent's reformation'" (72). These

Amazon reviews operate within this longer tradition of performativity and play, where

the pleasure of reading and writing against the grain coexists with and often seems to

supersede the intended critique of Amazon or any given product advertised on its

website; at the same time, though, this "against the grain" writing throws Amazon's

claims to preeminence in commodity marketing, logistics, and delivery into sharp outline.

In this way, satirical reviews tend to proliferate on Amazon for products that are

unusual or unnecessary, like a cookbook called *Microwave for One* or a kitchen appliance

designed specifically to slice bananas. These products, as well as handful of others, have

been inundated with thousands of mostly satirical reviews. In other instances, satirical

reviews are mixed with seemingly sincere reviews, as is the case for the "Kleenex Facial

Tissue, 85 Count." In that case, the majority of the reviews seem to be real and relevant

to the product, but one of the reviews is written from the point of view of an exasperated

mother buying the massive case of tissues because of her three teenage boys. The review

explains, "This is how it goes in this house. First the Kleenex disappears. Then the toilet

paper. Then they go for fabrics. And you don't want it to get there unless you're willing to invest in a five gallon drum of Fabreeze."[24] The implication, of course, is that the boys are constantly masturbating, and the story is intended to point out the absurdity of selling boxes of tissues in such large quantities, underscoring the fact that there must be an extreme reason for doing so.

Writing satirical reviews on Amazon has become a well-known practice: a search in Google for "funny amazon reviews" yields pages of relevant results on blogs as well as humor and news aggregation sites.[25] Amazon itself even contains a list of "Funniest Amazon Product Reviews," suggesting that this seemingly unsanctioned practice has already been folded into the larger marketing strategies of Amazon. Amazon could presumably take down these reviews but they choose not to as they clearly stand to benefit from the increased traffic to their site that these reviews generate. The incorporation of these reviews into the larger structure of Amazon suggests that while they appear to be an example of what Felix Stalder would call "semiotic democracy," where people have agency and are able to express themselves as they choose, they also function as spectacle, giving the appearance of meaningful participation when in reality the creative energies of the participants are being rerouted and coopted by a corporation that they are intending to subvert. For these reasons, it is not hard to imagine a "paranoid reading" of these reviews in Eve Sedgwick's terms, where what might appear to be participatory correspondence turns out to be simply the spectacle of techno-capitalist

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[24] From a review titled "A Mother's Struggle" on December 8, 2013.

[25] For instance, see amazonreviewlols.tumblr.com

power. Nevertheless, reading reparatively allows us to identify the playful circulation of affect within these reviews, particularly frustration but also surprise, as well as the fact that these reviews circulate well beyond Amazon as what Henry Jenkins et al. term "spreadable media," as they are aggregated on other sites, generating various related images and videos, such as a reimagined image of Rosie the Riveter, now holding a pen and saying "We Can Write it." In this way, they generate imaginative and unexpected possibilities for composition and representation in apparently highly instrumental digital networks.

A trend emerging in many of these reviews is that they seek to mimic and/or revise hegemonic discourses on gender and sexuality, and that they frequently are extremely self-reflexive about the act of writing. In this section, I focus on satirical reviews for the BIC Cristal For Her Ball Pen, a set of colorful pens pointedly marketed towards women to the extent that the official product description refers to the "elegant design—just for her!" as well as the "thin barrel to fit a woman's hand." It is not surprising that these gendered claims about what appears to be an ordinary package of ballpoint pens have invited so much ridicule, and that the satirical reviews are laden with meanings around gender and literacy. As of February 2015, the BIC pens have 2,096 user-generated reviews on Amazon, often mobilizing literary tropes to poke fun at the sexism inherent in the product concept and description. These reviews sometimes receive numerous comments and thousands of up votes—in fact, one particularly whimsical review of the pen has now garnered over 39,000 up votes on Amazon for being "helpful."

These up votes function as a form of communal peer review, so that the first product

reviews a reader sees are the ones with the most up votes.[26]

Reviews of the BIC pen frequently use the pen to comment on the gendered

context in which we read and write. For example, one brief review enthusiastically notes,

"Well at last pens for us ladies to use…now all we need is 'for her' paper and I can

finally learn how to write!"[27] and another review claims, "I wrote down this review

actually using this product, but my husband had to type it out for me as I have no idea

how to use any form of technology other than a blender."[28] Both of these reviews self-

reflexively comment on the gendered nature of literacy and they both ironically disavow

their access to technologies of writing through writing. The overly enthusiastic tone of

the first review is typical of many of the reviews, including the abovementioned one with

39,000 up votes that enumerates all of the positive outcomes of using the pen, including,

apparently that the reviewer's "drawings of kittens and ponies have improved, and now

that I'm writing my last name hyphenated with the Robert Pattinson's last name, I really

believe he may some day marry me!"[29] Many of the reviews play on the idea of women

being overly emotional, whether they are enthusiastic or weepy, and in this case, the

popular romance, embodied in the figure of Robert Pattinson, star of the *Twilight* films,

provides a language to critique the rigid gendered norms reflected in both the marketing

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[26] Kathleen Fitzpatrick's *Planned Obsolescence* (2011) and Yochai Benkler's *The Wealth of Networks* (2006) both address the advantages and disadvantages of up-voting as a form of peer review.

[27] From a review titled "Only Missing the Paper" on April 12, 2013.

[28] From a review titled "Hallelujah!!!" on August 29, 2012.

[29] From a review titled "Finally!" on August 24, 2012.

of the pen and in the film. The social web thus serves as a platform to satirize commodities as correspondence rather than as a delivery platform dominating everyday consumer life. The other review, which describes the reviewer's husband typing her reply because of her lack of technological know-how, models several of the other prevailing tendencies in these reviews. Many of the reviews play on the idea of female intellectual inferiority, especially in relation to the ability to grasp concepts in science, technology, and math. Moreover, many of them playfully perform 1950s middle class notions of ideal femininity, where women are relegated to the domestic domain and subjugated to their husbands. Several of the reviews even ironically sign off by making reference to needing to go make a sandwich for a waiting husband. Through this invocation of mid-century gender relations, these reviews attempt to interrogate negative connotations around feminine literacies.

Some of the other reviews more overtly address female sexuality, as they either mis-read the pen as a vibrator, like one disgruntled reviewer who "can't find a switch to turn it on," or as they invoke discourses related to menstruation. In fact, 42 of the reviews use the word "flow" to describe the pen, some of them reading the pen as a tampon and others reading it as an object that menstruates. One of these reviews describes the pen in this way: "It only has 78% of the writing power of For Him pens. After extensive use it's still unclear whether this handles all writing, or only 'legitimate writing'. Also an awkwardly excessive ink flow after the end of four weeks."[30] Here the pen is described as "awkwardly" menstruating every four weeks, reflecting masculinized cultural norms

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[30] From a review titled "Not as strong as man pens, unusual flow every four weeks" on August 29, 2012.

where menstruation is a site of discomfort and is addressed euphemistically in advertising

for products "for her." The idea that the pen has "78% of the writing power of For Him

pens" calls to mind widely cited and debated statistics about the pay gap between men

and women, where women on average earn 77 cents for every dollar that a man earns.[31]

In this way, questions of labor circulating in other reviews that rely on housewife

discourses are visible here as well. Moreover, the distinction between "writing" and

"legitimate writing" refers to a Missouri politician's recent reference to "legitimate rape,"

a qualifier that undermines the meaning of the word "rape."[32] In the same way, the

concept of "legitimate writing" calls to mind the historical devaluation of women's

writing, as female writers such as nineteenth century novelist George Eliot and

contemporary novelists such as J. K. Rowling have used male pen names in order to have

their work taken more seriously. Another review exclaims, "But now, thanks to living in

the most modern and socially advanced country on the planet, I have a pen that will go

with my lady parts!!!!"[33] The hyperbolic reference to the "most modern and socially

advanced country on the planet" draws our attention to the fact that in a society where

some believe that gender equality has been achieved—and "men's rights" zealots even

claim that our culture is female-dominated—women still do not have access to equal

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[31] An April 2014 article entitled "Pay Gap is Because of Gender, Not Jobs" in the *New York Times* by Claire Miller and a September 2013 article entitled "Women Still Earned 77 Cents on Men's Dollar in 2012: Report" in the *Huffington Post* by Laura Bassett exemplify popular discourse about the gender wage gap.

[32] Politician Todd Akin came under fire for using the term "legitimate rape" during a 2012 campaign. Lori Moore's *New York Times* article "Rep. Todd Akin: The Statement and the Reaction" gives a breakdown of the initial comment and the reactions of other politicians.

[33] From a review titled "I feel so womanly, I'm practically lactating!" on April 12, 2013.

opportunities as men. These reviews all play with questions of temporality, as they use satire to point out the continuing pervasiveness of apparently antiquated and patriarchal gender relations and labor divisions in a supposedly feminist time and place; in this way, their engagement with non-linear and non-teleological temporality potentially contests Amazon's drive towards temporal mastery through geo-locative narrowing of delivering times and its plans for "drone futures."

What does it mean for Amazon to be a site of feminist meaning making? Critics of gender and race such as Janice Radway, Lindon Barrett, and Adam Banks all turn to popular culture in the form of the romance novel, the singing voice, and the DJ respectively as examples of how marginalized groups are able to express their desires and challenge oppressive paradigms through popular creative production. Janice Radway's seminal *Reading the Romance* (1984) offers a view of how women readers in the 1970s and 80s found meaning in the patriarchal discourses structuring popular romance novels. Radway argues that although the narratives themselves reinforce problematic, male-dominated notions of ideal femininity and romance, the way in which readers read and thought about the genre created a kind of oppositional practice. In the case of satirical Amazon reviews, it is the readers who, riffing off of the narrative created by BIC about women's desires in relation to their literacy, create hyperbolically patriarchal narratives intended to use satire and humor to interrogate widely accepted discourses of feminist progress or post-feminism. Like Radway's romance readers, these Amazon reviewers create meaning out of consumer culture, but unlike them, the Amazon reviewers self-reflexively position themselves as oppositional.

At stake here are questions about how Amazon becomes an intersection where

work and pleasure meet. As discussed in chapter 4, Tizianna Terranova refers to user-

generated content as "free labor," pointing to the fact that pleasurable social media

practices, in this case writing satirical reviews, are also creating value for the large web

platforms that host user-generated content. In this case, though, questions of labor also

relate to Amazon's own well-documented exploitative practices,[34] where the company's

emphasis on neoliberal values like flexibility create instability and poor working

conditions for their employees and where attempts are being made to replace human

workers with drones.[35] It is notable that so many of the reviews draw upon housewife

discourses about being barefoot and pregnant or using kitchen appliances to critique

gendered divisions of labor in the home, and yet they do not engage with twenty-first

century labor problems like underemployment, flexibility for management at the expense

of workers, destruction of unions, and devaluation of human labor in general. Drawing

upon and revising Marxist theories of social class formation by explicitly addressing

technical transition, critics like Bernard Stiegler argue that we need to move away from

our current unsustainable consumerist economy characterized by carelessness,

disposability and loss of knowledge—which he refers to as "proletarianization" (30)—

towards an alternative economy centered around care and contribution. The satirical

reviews fail to respond to some of these most pressing economic issues of our time

mentioned by Stiegler that Amazon itself is actively perpetuating, and, by virtue of them

[34] Simon Head's "Worse Than Wal-Mart: Amazon's Sick Brutality and Secret History of Ruthlessly Intimidating Workers" (Feb 2014) is a recent example of the many journalistic accounts on the topic.

[35] A recent *New York Times* article by Nick Wingfield discusses Amazon's attempts to move forward with testing the drones outdoors.

being satire, they also do not offer an alternative economic and social vision. In this way, these reviews can become a kind of escapism, much like the romance novel, where although there is some agency and oppositionality embedded into the practice of reading and writing them, they ultimately cover over or fail to address the key problems associated with women's labor in the twenty-first century even as they claim to take the issue on. At the same time, reading reparatively allows us to see that the circulation of these reviews, if not the content itself, produces and disseminates affective "resonance," as Susanna Paasonen has used the term, within our experiences of the commercial web.

Moreover, while these reviews make broader political claims about the value of women's literacy, often invoking voting and property ownership, they generally do not engage with social class, race, or non-heterosexual sexuality, and even as they critique retrogressive femininity, they also seem to evoke second wave feminism by establishing concerns typical of middle class white women as norms. While critics like David Eng demonstrate the importance of intersectional politics that take into account both race and sexuality, these Amazon reviews tend to focus primarily on gender. A consequence of this lack of intersectionality is that marginalized histories of reading and writing, such as African American histories, are potentially covered over. African American cultural critics like Lindon Barrett and Adam Banks have called into question the central importance given to alphabetic literacy over oral literacies in western culture. Barrett argues for the importance of voice as a mode of disrupting dominant social, political, cultural, and economic paradigms that exclude and devalue African American contributions even as they depend on African American bodies for labor. Responding to

these histories, Adam Banks argues for expanded notions of literacy that value orality, print, and digital modes of communication. In a similar vein, Radway challenges the central place given to high status works of so-called literature over and above other apparently lowbrow works such as romance novels. These Amazon reviews, on the other hand, tend to privilege enlightenment notions of subjecthood, which prioritize and even fetishize alphabetic writing, thereby potentially ignoring historical exclusions that do not apply to white, heterosexual women. The silences and absences within these reviews with regards to questions around labor, race, and writing call to mind questions of silence and self-expression depicted in *The Silent History*.

Some of the concerns repeatedly surfacing in these satirical reviews are around women's place in labor markets, women's exclusion from STEM fields, menstruation, displays of female sexuality, women's disempowerment in interpersonal relationships, women's access to voting and property rights, and the excessiveness of feminine affect. The imaginative and often humorous narratives about these pens on the one hand bring together some key concerns about gender and literacy by shedding light on how users might negotiate their use of ubiquitous and inscrutable networks, and, on the other hand, they reify historical exclusions surrounding labor and literacy, especially as it relates to race and social class. In spite of these exclusions, these reviews offer the potential for pleasure and limited agency for some. As I discuss in chapter 1, Susanna Paasonen's study of online pornography demonstrates that affect circulates in unexpected ways in web 2.0 and that instrumental functionalities like user-generated reviews on websites can become sites for humor, pleasure, and play. Critics like Michael Heim put this in terms of

the erotic, arguing, "the computer's allure is more than utilitarian or aesthetic; it is erotic." Relatedly, Griffin argues that there is a longstanding connection between satiric pleasure and the erotic, as metaphors around satire "suggests pleasures that we might call quasi-erotic" (173). Many of the satirical product reviews for the BIC pen discussed above circulate embodied imagery, and this imagery is frequently tied to signs or affects of the erotic. Just as Griffin shows that pleasure is inextricably bound with historical iterations of satire, the value of taking pleasure in satirical literary forms continues into the present day in the context of these reviews. Satire thus offers us a pleasure that brings meaning beyond the kind of consumerist pleasure of purchasing furniture and electronics that Amazon is intending to provide. Through their deployment of satire, the product reviews thus offer a limited but potentially generative model for future social media participation and engagement that underscores the abiding significance of the literary in contemporary culture, as literary values offer an increasingly important means of disruption and critique in a media ecology dominated by corporate interests like Amazon even as literary values remain limited by their ongoing exclusions.

Conclusion: Towards Geospatial Literacies

Both locative media and satirical product reviews offer imaginative and yet problematic or partially successful critical literacies that respond to ongoing efforts by corporations such as Amazon, Apple, and Google to gain mastery over physical and digital spaces. At stake is the tension between democracy and spectacle that Felix Stalder identifies—will we be able to access meaningful literacies—that is, express ourselves on

our own terms—using hardware, software and networks that we cannot control? Both

The Silent History and satirical Amazon reviews represent efforts to reclaim agency

through collaborative, geospatial forms of self-expression. Both use literary devices,

metaphor and satire respectively, to model strategies for inclusivity and peer review, even

as they attempt to subvert drives toward hyperindustrial connectivity, homogenization,

and instrumentality. *The Silent History* and the Amazon reviews approach these problems

in opposite ways, and, as a result, they exemplify different potentials and risks. For

example, both projects use mobile media and commercial web spaces respectively in

non-instrumental, playful ways. As a result, they point to play as a key aspect of literacy

that exceeds the history of gameplay, and that enters into our everyday experiences of

reading and writing. Moreover, both projects are inclusive in the sense that users can

contribute content, but in neither case does this necessarily lead to the inclusion of

diverse voices. In the case of *The Silent History*, the discourse describing the field reports

available "on five continents" aspires towards a cosmopolitan openness, but in reality

they tend to be based in major city centers in the industrialized, Anglophone west. The

satirical Amazon reviews for the BIC pen include content from contributors around the

U.S., from a range of places like West Virginia and Wisconsin that we might not

necessarily think of as feminist places. In spite of this geographic diversity, the reviews

are fairly homogenous. Despite their aspirations then, both projects thus circulate very

limited discourses—for the Amazon reviews, it's white, heteronormative feminism and

for the locative fiction, it's urban-centric, technocosmopolitanism. At the same time, both

of these projects are open-ended and ongoing, so they potentially may be reshaped by future contributors.

Ultimately, these experiments offer us opportunities to critically reflect on our everyday experiences of reading and writing and to consider how we might critically situate and resituate these practices in order to imagine new opportunities for individual and collective agency. They demonstrate that geospatial literacy, that is, thinking specifically about where we are located as readers and writers, is crucial to developing critical modes of literacy mediated through commercial devices and networks. These projects help us think through and beyond the digital divide to see the multiplicity of writing practices that gesture towards inclusion and openness in some ways even as they can be exclusive and homogenizing in other ways. This all shows that we need a multiplicity of platforms for writing, even as we need to better consider how to move away from models of consensus and repetition towards models of dialogue and difference.

Conclusion

Critical Literacies, Pedagogy and 'Real World' Application

In June 2014, I spent a week in a workshop in Vancouver, British Columbia led

by Kate Pullinger, the author of "Flight Paths," with a dozen other artists, writers, and

academics interested in creating a work of digital fiction.[1] We were given access to the

image and sound archives for "Flight Paths," but ultimately the group decided that we

wanted to find our own images, sound, and text, and that we wanted it to emerge from the

feel of the Pacific Northwest. Our project, called "The Last Cartographer," tells the story

of a near-future Vancouver slowly being flooded in five loosely connected episodes.[2]

Working on a collaborative project of this nature generated a number of productive

conversations about form (i.e. How much interactivity did we need? Should we use QR

codes to create a locative narrative? What kind of navigation did we want, and how might

our navigation function metaphorically? How do we work around technical limitations?),

multimodal composition (How could we best use sound? To what extent should we

manipulate images? Where should we get our images from?), aesthetics (How subtle

could our writing be while still being clear? To what extent should image, sound, and text

correspond?), representation (i.e. How should indigenous cultures be represented in our

story? What defining features of Vancouver do we want to depict?), and collaboration

(i.e. Who makes final decisions? How do we move forward when there are too many

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[1] The workshop, held at Simon Fraser University, was called "Pathways: Creating Digital Fiction with Kate Pullinger," and it was organized by John Maxwell, Haig Armen, and Kate Pullinger.

[2] The story is accessible at http://digitalpathways.net/lastcartographer/original/

ideas?). Much more than any final product, the process of negotiating these conversations and resolving these questions collaboratively was suggestive of how creating experimental literary works can offer us opportunities to reflect on key questions relevant to twenty-first century literacies.

Throughout this dissertation, I have argued for the need for critical literacies that go beyond simply knowing how to read, write, or even code, for that matter. Instead, I have claimed that those interested in critical literacy should look to experimental literary works and practices of media production as models, albeit imperfect ones, for expression that might lead to increased agency, community-building, and self-sovereignty, especially for historically marginalized communities. The four elements of critical literacy I have identified are as follows: that critical literacy is non-instrumental in ways foregrounding play and experimentation, process-based in ways reflecting technical procedures but also process-oriented interventions in feminist art and letters as well as other critical interventions, collaborative in ways paradigmatic of social belonging or alterity, and geospatial in ways that pit micro-situated knowledges against powerfully commodifying and subjectifying ubiquitous computing. These four attributes resonate with Donna Haraway's argument for "situated knowledge," and yet they prioritize correspondence in both historical and contemporary terms in addition to the local "situatedness" of knowledge production in global networks. While each of the four attributes of critical literacies are applicable to examples discussed in each chapter, I have used each chapter to highlight one of these elements at a time, emphasizing its specific value, as well as its potential limitations, within the context of critical literacy. Chapter 2 studies *J R* (1975)

as an example of non-instrumental literacy, as the novel critiques the literalism of Wall Street and the "passing failing" mentality of J R, while using its experimental form to propose playfulness, humor, and complexity as possibilities for ethical modes of reading and writing. Chapter 3 considers feminist short-form fiction like *First Draft of the Revolution* (2012), *Digital: A Love Story* (2010), and *Quibbling* (1993) that depict the process of reading as a complex negotiation between material and social constraints where networked correspondence creates the experience of resonance. Chapter 4 focuses on the value of critical cosmopolitanism and collaboration through a study of governance and representation in works of reparative social media like "Minneapolis and St. Paul are East African Cities" (2003). Lastly, chapter 5 reads *The Silent History* (2013) and satirical product reviews on Amazon as revealing the value and limitations of geospatial literacies emerging in contemporary literary forms. In this way, although each of the chapters focuses on one of these elements, all of the elements are present in examples discussed throughout the dissertation.

They are also all present in the experience of developing "The Last Cartographer," and I review these four key elements here in relation to "The Last Cartographer" to reflect on the hands-on practice of theories of critical literacy addressed throughout the dissertation. First, in and of itself, using digital media to create multimedia fiction reflects a long history of non-instrumental uses of digital media, where digital writing becomes a site of exploration, pleasure, play, and agency, rather than one of economic production, efficiency or control. Second, the group involved with "The Last Cartographer" generally prioritized process over final product. For instance, we used

open-source software because of the values of access and share-ability and because it gave us increased control over the technical possibilities and interface design of our work, in spite of the fact that proprietary software might have allowed our workflow to go faster and might have been easier for some to use.[3] Third, related to collaboration, questions of governance, such as who should make decisions for a group, were challenging in terms of "The Last Cartographer," not because there was disagreement but because there was not a clear structure for decision-making, which often left us deferring decisions. Even though we were a group of only about fifteen people, the experience demonstrated that even smaller-scale collaboration might be more productive and inclusive to all. At the same time, bringing together a group of people with different skills and interests: drawing, photography, film-making, poetry, design, publishing, and literary criticism, allowed us to develop a richer and more complex multimodal narrative than we each would have been able to create on our own. Lastly, in terms of geospatial literacies, the group was committed to translating our varied experiences of Vancouver—about half of us were locals and the other half were from out of town—into a creative digital project. Several of the group members collected sounds and images from urban landmarks around Vancouver, and the storyline incorporated issues related to urban development, public transportation, and immigration relevant to the location. Situating a flood story in Vancouver gave us opportunities to creatively respond to the local

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[3] For a detailed description of the paper and digital technologies used in the collaborative writing process, see Haig Armen, John Maxwell, and Kate Pullinger's "Where the Wild Things Are: Seeking Improvisation on the Open Web Platform," *Books in Browsers V Proceedings* 18.1 (Winter 2015).

environment, including the ocean that we could see out of the window of the Simon Fraser University building.

In this way, "The Last Cartographer" reveals the practical and pedagogical applications of the four attributes of critical literacy, as well as some of the risks of prioritizing these attributes. Ultimately, "The Last Cartographer" as well as the wide range of novels, hypertext, digital art, locative media, and everyday social media practices surveyed in this dissertation draw our attention to the material conditions, the social norms, and the local conditions that shape our experiences of reading and writing. Moreover, these works have valuable pedagogical implications as we, as educators, grapple with what it means to teach others to read and write in light of rapid media transformations, when the grounds of literacy seem to be constantly shifting beneath us, calling for a kind of endless flexibility. In this way, literary values have broad and even practical implications, as they help us to conceptualize literacy beyond the overly narrow paradigms of composition studies or digital media studies alone. The four attributes of critical literacy that the experimental literary works discussed in this dissertation model point to future literacies not tied to specific platforms, software, or hardware, but rather tied to values like shared decision-making, ethical strategies of representation, and imaginative encounters across difference. These are the kinds of literacies never taught in J R's networked school, but they are the literacies we might imagine, advocate for, and, most importantly, teach in our own classrooms.

Works Cited

Aarseth, Espen J.. *Cybertext: Perspectives on Ergodic Literature*. Baltimore: Johns Hopkins University Press, 1997. Print.

Acker, Kathy. *Don Quixote: A Novel*. New York: Grove Press, 1994. Print.

Adams, Ernest W.. *Diss*. *Resolutions to Some Problems in Interactive Storytelling*. University of Teesside, 2013. Web.

Addley, Esther and Rory McCarthy. "The Man who Fell to Earth." The Guardian. 17 July 2001. Web.

Adiga, Aravind. *Between the Assassinations*. New York: Free Press, 2010. Print.

Armen, Haig, John Maxwell, and Kate Pullinger. "Where the Wild Things Are: Seeking Improvisation on the Open Web Platform." *Books in Browsers V Proceedings* 18.1 (Winter 2015): n.p.. Web.

Armstrong, Kate. *Source Material Everywhere*. 2011. Print.

--. *Why Some Dolls are Bad*. 2007. Web.

Banks, Adam. *Digital Griots: African American Rhetoric in a Multimedia Age*. Carbondale, IL: Southern Illinois University Press, 2011. Print.

Barrett, Lindon. *Blackness and Value: Seeing Double*. Cambridge, UK: Cambridge University Press, 1999. Print.

Bassett, Laura. "Women Still Earned 77 Cents on Men's Dollar in 2012: Report." *Huffington Post* 17 September 2013. Web.

Benkler, Yochai. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven, CT: Yale University Press, 2006. Print.

Bennahum, David. *Extra Life: Coming Of Age In Cyberspace*. New York, NY: Basic Books, 1999. Print.

Bhabha, Homi. "Of Mimicry and Man: The Ambivalence of Colonial Discourse." *The Location of Culture*. London and New York: Routledge Classics, 2010. Print.

Birkerts, Sven. *The Gutenberg Elegies: The Fate of Reading in an Electronic Age*. First Edition. New York: Faber & Faber, 2006. Print.

Blackstone School of Law, Inc. Advertisement. 13 February 1967. J R Manuscripts. Box 56. The William Gaddis Papers, Washington University St Louis Library, Missouri.

Blume, Howard. "LAUSD launches its drive to equip every student with iPads." *Los Angeles Times*. 27 August 2013. Web.

Bogost, Ian. *Persuasive Games: The Expressive Power of Videogames*. Cambridge, MA: The MIT Press, 2010. Print.

Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media*. 1st edition. Cambridge, Mass.: The MIT Press, 2000. Print.

"Border Film Project." http://www.borderfilmproject.com/en/index.php. 2005. Web.

Bourdieu, Pierre. *The Field of Cultural Production*. Ed. Randal Johnson. 1st edition. New York: Columbia University Press, 1993. Print.

boyd, danah. *It's Complicated: The Social Lives of Networked Teens*. New Haven: Yale University Press, 2014. Print.

boyd, danah m. and Nicole Ellison, "Social Network Sites: Definition, History, and Scholarship," *Journal of Computer-Mediated Communication* 13.1 (2007): 210 230. Web.

Brennan, Timothy. *At Home in the World: Cosmopolitanism Now*. Cambridge, Mass.: Harvard University Press, 1997. Print.

Brouillette, Sarah. *Postcolonial Writers in the Global Literary Marketplace*. New York: Palgrave Macmillan, 2007. Print.

Brown, Nicholas. "African Literature, Modernism, and the Problem of Political Subjectivity." *Novel* 41.2-3 (2008): 264–278. Web.

Burn, Stephen J. "The Collapse of Everything: William Gaddis and the Encyclopedic Novel." *Paper Empire: William Gaddis and the World System*. Ed. Joseph Tabbi and Rone Shavers. Tuscaloosa, AL: University of Alabama Press, 2007. Print.

Bush, Vannevar. "As We May Think." *The Atlantic* July 1945. Web.

Cadre, Adam. "9:05." 2000. http://adamcadre.ac/if.html. Web.

Carr, Nicholas. *The Shallows: What the Internet Is Doing to Our Brains*. New York: W. W. Norton & Company, 2011. Print.

Castillo, Ana. *The Mixquiahuala Letters*. New York, NY: Bilingual Review Press, 1992. Print.

Chamberlain, William, and Thomas Etter. *The Policeman's Beard Is Half-Constructed: Computer Prose and Poetry*. New York, NY: Warner Software/Warner Books, 1984. Print.

Chandler, Annmarie. "Animating the Social: Mobile Image/Kit Galloway and Sherrie Rabinowitz. *At a Distance: Precursors to Art and Activism on the Internet*. Eds. Annmarie Chandler and Norie Neumark. Cambridge, MA: MIT University Press, 2005. Print.

Chandler, Annmarie and Norie Neumark, eds. *At a Distance: Precursors to Art and Activism on the Internet*. Cambridge, MA: MIT University Press, 2005. Print.

Chénetier, Marc. "'Centaur Meditating on a Saddle': Fabric and Function of the Narrative Voice in William Gaddis' J R." *symplokē* 14.1/2 (2006): 252–270. Web.

Chetwynd, Allistair. "William Gaddis' Education-Writing and His Fiction: A Fuller Archival History." 2014. Draft.

Chow, Rey. *The Age of the World Target: Self-Referentiality in War, Theory, and Comparative Work*. Durham, NC: Duke University Press, 2006. Print.

Chun, Wendy Hui Kyong. *Control and Freedom: Power and Paranoia in the Age of Fiber Optics*. Cambridge, MA: MIT Press, 2006. Print.

Conley, Tim. "William Gaddis Calling: Telephonic Satire and the Disconnection of Authority." Studies in the Novel 35.4 (2003 Winter): 526-542. Web.

Crane, Michael and Mary Stofflet, eds. *Correspondence Art: Source Book for the Network of International Postal Art Activity*. San Francisco: Contemporary Art Press, 1984. Print.

Crogan, Patrick. *Gameplay Mode: War, Simulation, and Technoculture*. Minneapolis: University of Minnesota Press, 2011.

Daniel, Sharon and Eric Loyer. "Public Secrets." *Vectors* 2.2 (Winter 2007). http://vectors.usc.edu/issues/4/publicsecrets/. Web.

Deleuze, Gilles and Félix Guattari. Kafka: Toward a Minor Literature. Trans. Dana Polan. Minneapolis: University of Minnesota Press, 1986. Print.

--. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. Minneapolis: University of Minnesota Press, 1987. Print.

Derrida, Jacques. *The Post Card: From Socrates to Freud and Beyond*. Trans. Alan Bass. Chicago, University of Chicago Press, 1987. Print.

"DOCC 2013: Dialogues on Feminism and Technology." *FemTechNet Commons*. femtechnet.newschool.edu/docc2013/. Web.

Drucker, Johanna. "Humanistic Theory and Digital Scholarship." *Debates in the Digital Humanities*. Ed. Matthew K. Gold. Minneapolis, MN: University of Minnesota Press, 2012. Print.

Dwyer, David. "Apple Classrooms of Tomorrow: What We've Learned." *Educational Leadership* 51.7 (1994): 4-10. Web.

Eagleton, Terry. *Literary Theory: An Introduction*. 2nd ed. Minneapolis, MN: University of Minnesota Press, 1996. Print.

Educational Television Questionnaire for Participating Students. Rivers High School, Charleston, S.C. Survey. May 1962. Corporate Writings. Box 133. The William Gaddis Papers, Washington University St Louis Library, Missouri.

Egan, Jennifer. *A Visit from the Goon Squad*. New York: Anchor, 2011. Print.

Eggers, Dave. *What is the What: The Autobiography of Valentino Achak Deng*. San Francisco, CA: McSweeney's, 2006. Print.

Eisenstein, Elizabeth. *The Printing Press as an Agent of Change*. New York: Cambridge University Press, 1982. Print.

Emerson, Lori. *Reading Writing Interfaces: From the Digital to the Bookbound*. Minneapolis: University of Minnesota Press, 2014. Print.

Eng, David L. *The Feeling of Kinship: Queer Liberalism and the Racialization of Intimacy*. Durham NC: Duke University Press Books, 2010. Print.

Eubanks, Virginia. *Digital Dead End: Fighting for Social Justice in the Information Age*. Cambridge, Mass: MIT Press, 2011. Print.

Evelyn Wood Reading Dynamics Institute. Advertisement. 23 August 1966. J R Manuscripts. Box 56. The William Gaddis Papers, Washington University St Louis Library, Missouri.

Farman, Jason. *Mobile Interface Theory: Embodied Spaced and Locative Media*. New
    York: Routledge, 2012. Print.

Fitzpatrick, Kathleen. *The Anxiety of Obsolescence: The American Novel in the Age of
    Television*. Nashville: Vanderbilt University Press, 2006. Print.

--. *Planned Obsolescence: Publishing, Technology, and the Future of the Academy*. New
    York: New York University Press, 2011. Print.

"Flight Paths: A Networked Novel." *Netvibes*.
http://www.netvibes.com/flightpaths#Contribute. Web.

Franzen, Jonathan. *How to Be Alone*. New York: Farrar, Strauss, and Giroux, 2002.
    Print.

Gaddis, William. *JR*. Champaign, IL: Dalkey Archive Press, 2012. Print.

--. *Television for Today's Education: A Report on the National Program in the Use of
    Television in the Public Schools*. The Ford   Foundation. Draft. 1963. Corporate
    Writings. Box No. 133. The William Gaddis Papers, Washington University St
    Louis Library, Missouri.

Galloway, Alexander R. *Protocol: How Control Exists after Decentralization*.
    Cambridge, Mass.: MIT Press, 2004. Print.

Galloway, Kit, and Sherrie Rabinowitz. *Electronic Café-84*. Los Angeles County
    Museum of Art. 1984.

Gilroy, Amanda, and W. M. Verhoeven. "Introduction." *Epistolary Histories: Letters,
    Fiction, Culture*. Eds. Amanda Gilroy and W. M. Verhoeven. Charlottesville: The
    University Press of Virginia, 2000. Print.

González, Jennifer. "The Face and the Public: Race, Secrecy, and Digital Art Practice,"
    Camera Obscura 24.1 (2009). Web.

Gottesman, Eric. "Ka Fifitu Feetu." 2003. pixelpress.org/eric/index.html. Web.

Greco, Diane. "Hypertext with Consequences: Recovering a Politics of Hypertext."
    Hypertext '96. New York: Association for Computing Machinery, 1996. Web.

Griffin, Dustin. *Satire: A Critical Reintroduction*. Lexington, Kentucky: The University
    Press of Kentucky, 1994. Print.

Guyer, Carolyn. *Quibbling*. Watertown, MA: Eastgate Systems, Inc.: 1992. Disc.

Habermas, Jürgen. *The Structural Transformation of the Public Sphere: An Inquiry into the Category of Bourgeois Society*. Trans. Thomas Burger. Cambridge, MA: MIT Press, 1991. Print.

Hall, Stuart. "Encoding/Decoding." *Television: Critical Concepts in Media and Cultural Studies, Volume 4*. Ed. Toby Miller. London: Routledge, 2003. 43-53. Print.

Haraway, Donna. "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s." *Socialist Review* 80 (1985): 65-107. Web.

--. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14.3 (1988): 575-599. Web.

Harding, Victoria. *Gaddis Annotations*. http://www.williamgaddis.org/. Web.

Harvey, David. *A Brief History of Neoliberalism*. Oxford, UK: Oxford University Press, 2005. Print.

Hayles, N. Katherine. *Electronic Literature: New Horizons in the Literary*. Notre Dame, Indiana: University of Notre Dame Press, 2008. Print.

---. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago, Ill: University Of Chicago Press, 1999. Print.

---. *My Mother Was a Computer: Digital Subjects and Literary Texts*. Chicago: University of Chicago Press, 2005. Print.

Head, Simon. "Worse than Wal-Mart: Amazon's Sick Brutality and Secret History of Ruthlessly Intimidating Workers." *Salon* 23 February 2014. Web.

Heim, Michael. "The Erotic Ontology of Cyberspace." *The Metaphysics of Virtual Reality*. New York and Oxford: Oxford University Press, 1993. Print.

Hight, Jeremy. "Interview with Kate Pullinger." *Leonardo Electronic Almanac*. 2011. Web.http://www.leoalmanac.org/wp-content/uploads/2011/12/interview-with kate-pullinger.pdf

Horowitz, Eli, Matthew Derby, Kevin Moffett, and Russell Quinn. *The Silent History*. 2013. Web.

Huggan, Graham. *The Postcolonial Exotic: Marketing the Margins*. New York: Routledge, 2001. Print.

Hume, Kathryn. "Diffused Satire in Contemporary American Fiction." *Modern Philology* 105.2 (2007): 300-325. Web.

Ito, Mizuko et al. *Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media*. Cambridge, Mass.: The MIT Press, 2013. Print.

Ito, Mizuko, Daisuke Okabe, and Ken Anderson. "Portable Objects in Three Global Cities: The Personalization of Urban Places." Eds. Rich Ling and Scott W. Campbell. *The Reconstruction of Space and Time: Mobile Communication Practices*. New Brunswick, N.J.: Transaction Publishers, 2010. Print.

Jackson, Shelley. *Patchwork Girl*. Watertown, MA: Eastgate Systems, Inc.: 1995. Disc.

--. "Stitch Bitch: The Patchwork Girl." *Paradoxa* 4 (1998): 526-538. Web.

James, E. L. *Fifty Shades of Grey*. New York: Vintage Books, 2011. Print.

Jameson, Fredric. *Postmodernism, or, The Cultural Logic of Late Capitalism*. London: Verso, 1991. Print.

Jenkins, Henry. *Convergence Culture*. New York: New York University Press, 2006. Print.

Jenkins, Henry, Sam Ford, and Joshua Green. *Spreadable Media: Creating Value and Meaning in Networked Culture*. New York: New York University Press, 2013. Print.

Johns, Adrian. *The Nature of the Book: Print and Knowledge in the Making*. Chicago, Ill: University Of Chicago Press, 2000. Print.

Jordan, Katy. "MOOC Completion Rates: The Data." *Katy Jordan Website*. http://www.katyjordan.com/MOOCproject.html. Web.

Joyce, Michael. *Afternoon: a story*. Watertown, MA: Eastgate Systems, 1990. Web.

Juhasz, Alexandra. *Learning From YouTube*. Cambridge, MA: MIT Press, 2011. Web.

Jurecic, Ann. "Neurodiversity." *College English* 69.5 (2007): 421–442. Web.

Juul, Jesper. "Fear of Failing?: The Many Meanings of Difficulty in Video Games." *The Video Game Theory Reader 2*. Eds. Bernard Perron and Mark J. P. Wolf. New York: Routledge, 2008. Print.

Kauffman, Linda S.. "Not a Love Story: Retrospective and Prospective Epistolary Directions." *Epistolary Histories: Letters, Fiction, Culture*. Eds. Amanda Gilroy and W. M. Verhoeven. Charlottesville: The University Press of Virginia, 2000. Print.

Kelty, Christopher M. *Two Bits: The Cultural Significance of Free Software*. Durham, North Carolina: Duke UP, 2008. Web.

Kirchhofer, Anton. "From Internet Fraud to Interactive Fiction: the Ethics and Poetics of 'Scambaiting'." *Internet Fictions*. Eds. Ingrid Hotz-Davies, Anton Kirchhofer, and Sirpa Leppänen. Newcastle upon Tyne, UK: Cambridge Scholars Publishing, 2009. Print.

Kirschenbaum, Matthew G. *Mechanisms: New Media and the Forensic Imagination*. Cambridge, Mass.: The MIT Press, 2012. Print.

Kittler, Friedrich. *Discourse Networks 1800/1900*. Trans. Michael Metteer. Stanford, CA: Stanford University Press, 1990. Print.

--. *Gramophone, Film, Typewriter*. Trans. Geoffrey Winthrop-Young and Michael Wutz. Stanford, California: Stanford University Press, 1999. Print.

Koblin, Aaron. "The Sheep Market." 2006. http://www.thesheepmarket.com/. Web.

Konstantinou, Lee. "Too Big to Succeed: On William Gaddis's 'J R'." *Los Angeles Review of Books*. 28 October 2012. Web.

Kunzru, Hari. *Transmission*. New York: Plume, 2005. Print.

Landow, George P.. *Hypertext 3.0: Critical Theory and New Media in an Era of Globalization*. Baltimore: Johns Hopkins University Press, 2006. Print.

Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press, 2005. Print.

LeClair, Thomas. "William Gaddis, 'J R', and the Art of Excess." *Modern Fiction Studies* 27.4 (1981): n. p. Web.

Lee, Chang-Rae. *On Such a Full Sea*. New York: Riverhead Books, 2014. Print.

Lévi-Strauss, Claude. *The Savage Mind*. Chicago: University of Chicago Press, 1966. Print.

Lewin, Tamar. "Harvard and M.I.T. Are Sued Over Lack of Closed Captions." *The New York Times* 12 Feb. 2015. Web.

Lister, Martin, et al. *New Media: A Critical Introduction*. Second Edition. New York: Routledge, 2009. Print.

Liszkiewicz, A. J. Patrick and Lucas Miller. "Mark Ditto Mark." http://markdittomark.com/. Web.

Liu, Alan. "From Reading to Social Computing." *Literary Studies in the Digital Age: An Evolving Anthology*. Eds. Kenneth M. Price and Ray Siemens. MLA Commons, 2013. Web.

--. The Laws of Cool: Knowledge Work and the Culture of Information. Chicago: University of Chicago Press, 2004. Print.

--. "Where is Cultural Criticism in the Digital Humanities?" Ed. Matthew K. Gold. *Debates in the Digital Humanities*. Minneapolis: University of Minnesota Press, 2012. 490-509. Print.

Losh, Elizabeth. *The War on Learning: Gaining Ground in the Digital University*. Cambridge, MA: MIT Press, 2014. Print.

Love, Christine. *Digital: A Love Story*. scoutshonour.com/digital/. 2010. Web.

Lovejoy, Margot, Christiane Paul, and Victoria Vesna. "Introduction." *Context Providers: Conditions of Meaning in Media Arts*. Eds. Margot Lovejoy, Christiane Paul, and Victoria Vesna. Bristol, UK: Intellect, 2011. Print.

Lovink, Geert. *Dark Fiber: Tracking Critical Internet Culture*. Cambridge, Mass.: MIT Press, 2002. Print.

"The Low-Tech Genius of 'Digital: A Love Story.'" *The Economist* 22 Apr. 2011. Web.

MacKinnon, Rebecca. *Consent of the Networked: The Worldwide Struggle for Internet Freedom*. New York: Basic Books, 2012. Print.

Mandiberg, Michael. "Introduction." *The Social Media Reader*. Ed. Michael Mandiberg. New York: New York University Press, 2012. Print.

Manovich, Lev. *The Language of New Media*. Cambridge, MA: MIT Press, 2001. Print.

McCarthy, Cormac. *The Road*. New York: Vintage International, 2006. Print.

McGonigal, Jane. *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*. New York: Penguin Books, 2011. Print.

McHale, Brian. *Postmodern Fiction*. London: Methuen, 1987. Print.

McLuhan, Marshall. *The Gutenberg Galaxy*. Toronto: University of Toronto Press, 2011. Print.

McPherson, Tara. "Why Are the Digital Humanities So White? Or Thinking the Histories of Race and Computation." *Debates in the Digital Humanities*. Ed. Matthew K. Gold. Minneapolis, MN: University of Minnesota Press, 2012. Print.

Mehretu, Julie and Entropy8Zuper!. "Minneapolis and St. Paul are East African Cities." 2002. http://tceastafrica.walkerart.org/. Web.

Miller, Claire Cain. "Pay Gap Is Because of Gender, Not Jobs." *The New York Times* 23 Apr. 2014. Web.

Montfort, Nick. *Twisty Little Passages: An Approach to Interactive Fiction*. Cambridge, Mass.: The MIT Press, 2005. Print.

Moore, Lori. "Rep. Todd Akin: 'Legitimate Rape' Statement and Reaction." *The New York Times* 20 Aug. 2012. Web.

Moore, Steven. Gaddis, William. *The Letters of William Gaddis*. First edition. Champaign, Illinois: Dalkey Archive Press, 2013. Print.

--. *William Gaddis*. Boston: Twayne Publishers, 1989. Print.

--. "William Gaddis: The Nobility of Failure." *Critique: Studies in Contemporary Fiction* 51.2 (2010): 118–120. Web.

Moretti, Franco. *Graphs, Maps, Trees: Abstract Models for Literary History*. London; New York: Verso, 2007. Print.

Nakamura, Lisa. *Cybertypes: Race, Ethnicity, and Identity on the Internet*. New York and London: Routledge, 2002. Print.

"Nightwalk in Marseille." *Google*. 2014. nightwalk.withgoogle.com/en/home. Web.

O'Donnell, Patrick James. "His Master's Voice: On William Gaddis's JR." *Postmodern Culture* 1.2 (1991): n. p.. Web.

On, Josh. "They Rule." 2004. http://www.theyrule.net/. Web.

Ong, Aihwa. *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty*. Durham and London: Duke University Press, 2006. Print.

O'Reilly, Tim. "What is Web 2.0: Design patterns and Business Models for the Next Generation of Software." 2005. Web.

O'Sullivan, Daniel. "What is an Encyclopedia? From Pliny to Wikipedia." *Critical Point of View: A Wikipedia Reader*. Eds. Geert Lovink and Nathaniel Tkacz. Amsterdam: Institute for Network Cultures, 2011. 34-49. Web.

Paasonen, Susanna. *Carnal Resonance: Affect and Online Pornography*. Cambridge, MA: MIT Press, 2011. Print.

Palmer, Charles and Courtney Anderson. "Proposal for a Film Approach to Educational Television." Submitted to American Telephone and Telegraph Co.. April 1962. Corporate Writings. Box 133. The William Gaddis Papers, Washington University St Louis Library, Missouri.

Puar, Jasbir K.. *Terrorist Assemblages: Homonationalism in Queer Times*. Durham: Duke University Press, 2007. Print.

Pullinger, Kate. "Living with A Million Penguins: Inside the Wiki-Novel." *The Guardian*. 12 March 2007. Web.

Pullinger, Kate and Chris Joseph. "Flight Path: A Networked Novel." 2007. http://collection.eliterature.org/2/works/pullinger_flightpaths.html. Web.

Pynchon, Thomas. *The Crying of Lot 49: A Novel*. New York: Olive Editions: Harper Perennial, 2009. Print.

Radway, Janice. *Reading the Romance: Women, Patriarchy, and Popular Literature*. Chapel Hill: University of North Carolina Press, 1984 Print.

Raley, Rita. *Tactical Media*. Minneapolis: University of Minnesota Press, 2009. Print.

Ramsay, Stephen and Geoffrey Rockwell. "Developing Things: Notes Towards an Epistemology of Building in the Digital Humanities." *Debates in the Digital Humanities*. Ed. Matthew K. Gold. Minneapolis, MN: University of Minnesota Press, 2012. Print.

Readings, Bill. *The University in Ruins*. Cambridge, Mass: Harvard University Press, 1996. Print.

"Reclaim Open Learning." Digital Media and Learning Research Hub at UC Irvine and MIT Media Lab. open.media.mit.edu. Web.

Roberts, Ben. "Against the 'Networked information Economy': Rethinking Decentralization, Community, and Free Software Development." *Criticism* 53.3 (2011). Web.

Rotunno, Laura. "User IDs: Email Novels and the Search for Identity." *A/B: Auto/Biography Studies* 21.1 (2006 Summer): 70-82. Web.

Sack, Warren. "Aesthetics of Information Visualization." *Context Providers: Conditions of Meaning in Media Arts*. Eds. Margot Lovejoy, Christiane Paul, and Victoria Vesna. Bristol, UK: Intellect, 2011. Print.

Saper, Craig J. *Networked Art*. Minneapolis: University of Minnesota Press, 2001. Print.

Sassen, Saskia. *Territory, Authority, Rights: From Medieval to Global Assemblages*. Princeton and Oxford: Princeton University Press, 2006. Print.

Scheinfeldt, Tom. "Sunset for Ideology, Sunrise for Methodology?" *Debates in the Digital Humanities*. Ed. Matthew K. Gold. Minneapolis, MN: University of Minnesota Press, 2012. Print.

Schiller, Herbert I.. *Information Inequality: The Deepening Social Crisis in America*. New York: Routledge, 1996. Print.

Schmidt, Michael. *The Novel: A Biography*. Cambridge, MA: Harvard UP, 2014. Print.

Sedgwick, Eve Kosofsky. *Touching Feeling: Affect, Pedagogy, Performance*. Durham, NC: Duke University Press, 2003. Print.

Selfe, Cynthia L. *Multimodal Composition: Resources for Teachers*. Cresskill, NJ: Hampton Press, 2007. Print.

"September 12: A Toy World." *Newsgaming*. 2003. http://www.newsgaming.com/games/index12.html. Web.

Shaw, Jonathan Imber. Diss. *Delirious Territories: Space and Festivity in American Literature*. New York University, 2007. *ProQuest*. Web.

Short, Emily and Liza Daly. *First Draft of the Revolution*. 2012. Web.

Shteyngart, Gary. *Super Sad True Love Story: A Novel*. New York: Random House Trade Paperbacks, 2011. Print.

Siegert, Bernhard. *Relays: Literature as an Epoch of the Postal System*. Stanford, CA: Stanford University Press, 1999. Print.

Simon, Sunka. *Mail-Orders: The Fiction of Letters in Postmodern Culture*. Albany, NY: State University of New York Press, 2002. Print.

Smith, Sidonie, and Julia Watson. "Witness or False Witness: Metrics of Authenticity, Collective I-Formations, and the Ethic of Verification in First-Person Testimony." *Biography* 35.4 (2012): 590–626. Web.

Smith, Stanley G. and Bruce Arne Sherwood. "Educational Uses of the PLATO Computer System." *Science* 192 (1976): pgs. 344-52. Web.

Smith, Zadie. "Generation Why?" *The New York Review of Books* 25 Nov. 2010. Web.

Spencer, Nicholas. *After Utopia: The Rise of Critical Space in Twentieth-Century American Fiction*. U of Nebraska P, 2006. Web.

--. "Critical Mimesis: *J R*'s Transition to Postmodernity." *Paper Empire: William Gaddis and the World System*. Eds. Joseph Tabbi and Rone Shavers. Tuscaloosa: University of Alabama Press, 2007. Print.

Spiro, Lisa. " 'This Is Why We Fight': Defining the Values of the Digital Humanities." *Debates in the Digital Humanities*. Ed. Matthew K. Gold. Minneapolis, MN: University of Minnesota Press, 2012. Print.

Spivak, Gayatri Chakravorty. "Can the Subaltern Speak?" *Marxism and the Interpretation of Culture*. Eds. Cary Nelson and Lawrence Grossberg. Urbana, IL: University of Illinois Press, 1988. Print.

--. "Subaltern Studies: Deconstructing Historiography." *Selected Subaltern Studies*. Eds. Ranajit Guha and Gayatri Chakravorty Spivak. Oxford: Oxford University Press, 1988. Print.

St Clair, Justin Michael. Diss. *Novel Listening: Background Sound and the Technologies of Aural Control*. University of Iowa, 2007. *ProQuest*. Web.

Stalder, Felix. "Between Democracy and Spectacle: The Front-End and Back-End of the Social Web." *The Social Media Reader*. Ed. Michael Mandiberg. New York: New York University Press, 2012. Print.

Stiegler, Bernard. *For a New Critique of Political Economy*. Trans. Daniel Ross. Cambridge: Polity Press, 2010. Print.

Straubhaar, Joseph D., ed. *Inequity in the Technopolis: Race, Class, Gender, and the Digital Divide in Austin*. Austin: University of Texas Press, 2012. Print.

Streitfeld, David, and Kevin J. O'Brien. "Google Privacy Inquiries Get Little Cooperation." *The New York Times* 22 May 2012. Web.

Sumner, Jennifer. "Serving the System: A Critical History of Distance Education." *Open Learning* 15.3 (2000): 267–285. Web.

Tabbi, Joseph, and Rone Shavers. *Paper Empire: William Gaddis and the World System*. Tuscaloosa, AL: University of Alabama Press, 2007. Print.

Terranova, Tiziana. "Free Labor: Producing Culture for the Digital Economy." *Electronic Book Review* (2003). Web.

Tobias, James. "Ethical Address: Designing Publics, Affective Use Value and Social Computing." Draft.

Turing, A. M. "Computing Machinery and Intelligence" *Mind* 59 (1950): 433-460. Web.

Turkle, Sherry. *Alone Together Why We Expect More from Technology and Less from Each Other*. New York: Basic Books, 2011. Web.

--. *Life on Screen: Identity in the Age of the Internet*. New York: Touchstone, 1997. Print.

--. *The Second Self: Computers and the Human Spirit*. Twentieth anniversary edition, first MIT Press ed. Cambridge, Mass: MIT Press, 2005. Print.

Universal Detectives. *Private Investigation as a Profession*. Universal City, CA: Universal Detectives, n.d. J R Manuscripts. Box 56. The William Gaddis Papers, Washington University St Louis Library, Missouri.

Vaidhyanathan, Siva. *The Googlization of Everything: (and Why We Should Worry)*. Berkeley: University of California Press, 2011. Print.

Van Dijck, José. *The Culture of Connectivity: A Critical History of Social Media*. Oxford; New York: Oxford University Press, 2013. Print.

Vanwesenbeeck, Birger. Diss. *Art and Community in Postmodern American Fiction (1955-2001)*. State University of New York, Buffalo, 2006. *ProQuest*. Web.

Viswanathan, Gauri. *Masks of Conquest: Literary Study and British Rule in India*. Delhi ; New York: Oxford University Press, 1998. Print.

Walkowitz, Rebecca. *Cosmopolitan Style: Modernism Beyond the Nation*. New York: Columbia University Press, 2006. Print.

Wardrip-Fruin, Noah. *Expressive Processing: Digital Fictions, Computer Games, and Software Studies*. Cambridge, MA: MIT Press, 2009. Print.

Weizenbaum, Joseph. *Computer Power and Human Reason: From Judgment to Calculation*. San Francisco: W. H. Freeman, 1976. Print.

--. "ELIZA—A Computer Program for the Study of Natural Language Communication Between Man and Machine." *Communications of the Association of Computing Machinery* 9.1 (January 1966): 36-45. Web.

Wingert, Bernd. "Riddling the Reader." *Dichtung-Digital* (1999). Web.

Wingfield, Nick. "Amazon Wins Approval to Test Delivery Drones Outdoors." *The New York Times* 19 Mar. 2015. Web.

Wysocki, Anne. *Writing New Media: Theory and Applications for Expanding the Teaching of Composition*. Logan, Utah: Utah State University Press, 2004. Print.

Zombies, Run!. Six to Start and Naomi Alderman. 2011. Web.

Zornow, G.B. "Education Technology Shapes the Future… Are You Ready?" Address to The National Catholic Educational Association booklet, Oct 22, 1968. Corporate Writings. Box No. 135. The William Gaddis Papers, Washington University St Louis Library, Missouri