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Preface:
New Media and American Literature

This special issue pairs two terms, *new media* and *American literature*, which are rarely put in the same sentence except, of course, as opposites. “New media,” stemming from “mass media,” carries with it connotations of entertainment, quick communication, and ephemeral information—that is, something other than literature, which implies ineffable and lasting artistic merit, density rather than clarity, and most traditionally, familiarity with letters and books. As Walter Benjamin (1968, 89) famously argued, “if storytelling has become rare, the dissemination of information has had a decisive share in this state of affairs.” He continues: “The value of information does not survive the moment in which it was new. It lives only at that moment; it has to surrender to it completely and explain itself to it without losing any time” (90). This border war, which Benjamin diagnosed fairly early in the last century as a “crisis in the novel,” has apparently only gotten more heated with the spread of digital technologies and new media.

In 2012, Stephen Marche opened his controversial essay “Literature is not Data: Against Digital Humanities” with the provocative claim that “big data is coming for your books. It’s already come for everything else” (*Los Angeles Review of Books*, October 28). Across the short piece, Marche sketches literature “as the opposite of data,” since, in his view, literature and meaning are “mushy,” “often ugly,” and “as human as the body.” Data, on the other hand, corresponds with an “inherently fascistic” algorithm, part of the “smoothness of technology.” But why is it that new media and literature, information and meaning, are so frequently opposed? What work does separating them do—and what work goes into disentangling them? Most importantly, what

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insights regarding both new media and American literature can emerge from their conjoining, a linkage that invites many earlier theoretical projects—from New Historicism to cultural critique—to question a stark separation of the literary from literature?

The authors of the wide-ranging articles in this special issue all respond in different ways to these questions. They—and we—all start, though, with the premise that literature, technology, and media have always been deeply intertwined. We also start by questioning what is at stake in the “newness” of new media, querying what difference the digital might make and how media have mattered to literature before they were digital. It is not the job of the scholar of literature to defend the literary from the technological but, rather, to attend with some care to the precise ways in which literature and technology constitute one another. Given that literature has most traditionally meant “the knowledge acquired from reading or studying books” and not simply books themselves, the job of the scholar is to understand how the medium affects and shapes knowledge.

It is within this larger understanding of what literature is and does that we place and explore work increasingly grouped under the umbrella term *digital humanities*. By doing so, we hope to move critical discussions about the digital humanities (DH) away from positions “for” or “against” toward more nuanced explorations of the conjunction between new media and American literature. We understand the digital humanities to encompass a wide variety of methodologies and approaches that can both complement and knock roughly against traditions in critical, interpretative, or historical literary studies. The politics of such methods run the gamut from a depoliticized formalism to emerging strands of queer or color critique. In this way, the digital humanities are much like literary or new media studies: in process, conflicted, debated. We are, at the same time, also sympathetic to those who worry about the potential and particular complicity of the digital humanities with the increasingly corporate nature of university life.¹ Nonetheless, the essays collected here are less concerned with such grand proclamations or polemics and more attuned to what might be gained when we think American literature, technology, and new media together within specific periods and contexts.

The benefits of such a juncture, as the work of Cathy Davidson, Mark Goble, Richard Grusin, Lisa Nakamura, Rita Raley, and others

have already shown, are many. First, it allows us to engage the materiality of literature anew, as the purported ephemerality of the digital has led to a heightened attention to the book as a specific medium. From lively investigations into the history of print (McLuhan 1962) to the study of electronic literature (Hayles 2008) to emergent strands of media forensics (Kirschenbaum 2008) and archaeology (Gitelman 2006 and Parikka 2012), the conjunction of the literary and new media has activated a series of rich inquiries into media specificity and materiality. As such, we come to see that literature was “marked up” long before we began to learn the intricacies of XML; this relationship between inscription and interpretation remains a lively terrain for research along a number of registers. Second, this juncture helps reorient our focus to flows and networks and to address how literature moves. While these endeavors might include modes of distant reading, they can deploy other analytics as well, pointing us toward transnational analyses. They help us to see literature as kinetic, placing import on how and where it travels, transforming social and material realities through which it passes. Third, we might produce new literary histories that attend to the societal and military contexts behind textual production and consumption as these contexts both circumscribe the literary imagination and propel wily forms of agency and resistance. This attention to context helps us better understand the scholar’s own complicity with military and corporate systems whether during the Civil War, the Cold War, or the era of the MOOC (Massive Open Online Course). Finally, we might develop new forms and theories of reading and writing that hearken back to older, nonliterary senses of reading, attending to those silences and gaps that cannot be represented but whose absence can still be read and given meaning. We can push beyond the word to activate a broader sensorium of sound, movement, and touch in both the texts we study and those we author, as the four digital essays included here illustrate.

This special issue of *American Literature* pursues these avenues of thought by grappling with literary and cultural texts from the late eighteenth to the early twenty-first century. Within this span, the collected essays touch upon a range of American phenomena from the letters of Thomas Jefferson to contemporary independently produced videogames. They explore a number of questions: How does new media studies operate in continuity with and also offer new sites for

exploring American studies and American literature? Can digital analytics or new media studies illuminate novel questions about key literary and historical figures (among them Thomas Jefferson, Ambrose Bierce, Cesar Chavez, and Eileen Chang)? How does this orientation extend approaches developed in American studies to new aesthetic objects (electronic literature, television series, databases, and digital games)? How do the technologies and techniques of the military or the corporation seep into the literary? How do new media affect not merely the content and method of scholarly work but also forms of production (from manipulating data to writing in digital formats)? How do they bring the humanities into conversation with the social sciences and sciences and to what ends?

New media, as we understand the category and as our contributors approach it, does not represent a single frame or method that might simply supplement or replace others. While most of the contributors situate themselves within American literary studies, they are also in conversation with media studies, the digital humanities, archive studies, critical theory, and cultural studies. Issues of technique (markup, visualization, editing) come into close contact with theories of race, temporality, labor, and knowledge. More specifically, the six essays you hold in your hand in the print issue of the journal (or, perhaps more likely, are reading online as PDFs) and the four Scalar projects that reside on our website address their core questions through historicism and transnational American studies (Marez, Shandler, So); close reading and comparative media analysis (Anderson, Jagoda, Scheible); surface reading and data visualization (Klein); textual markup analysis and media archaeology (Carey, Sayers); and critical assessment of quantitative and qualitative digital humanities methods (Hall). They also vary a good deal in style and tone, ranging from careful archival mapping to punning play to forceful polemic.

A featured method of the digital humanities (and of the computational humanities before the term *digital humanities* came into vogue over the past decade) is a focus on encoding or marking up text. For instance, the Text Encoding Initiative (TEI) was established in 1987 as a consortium “which collectively develops and maintains a standard for the representation of texts in digital form.”² The TEI promotes methods and standards for encoding humanities data that are hardware and software independent, allowing the greater interoperability

of machine-readable texts, and it has achieved considerable success. Digital humanities conferences regularly feature work in this area. But how might we conceive of “markup” before the digital? Are there prehistories to text encoding that we might usefully explore as we consider the juncture of the literary and media? In his essay here, Craig Carey answers in the affirmative and directs our attention to the perhaps unlikely figure of Ambrose Bierce in order to think through and beyond the historical conditions of our current markup regimes. Drawing from the cultural techniques of German media theorists, Carey investigates how the materiality of Bierce’s style operates in a “mutually constitutive relationship with the cultural techniques that marked it up.” In particular, he is interested in the ways through which Bierce’s training as a topographer in the Civil War left its marks upon the author, delimiting his own relationship to the page, the principal unit of Bierce’s ample legacy. Bierce’s style is thus not a simple literary effect but rather a refraction of his own constitution through the technologies and mediation of wartime. As such, Carey points us toward a posthermeneutic moment of stylistics and surface reading, proposing that “inscription precedes interpretation.” If Carey argues that Bierce’s own methods of markup predict our digitally encoded moment, he also directs us to think of markup as deeply political and historically situated, leaving its traces on both the living and the dead.

In turning our attention to the obsessive archival habits of Thomas Jefferson, Lauren Klein also takes up questions of inscription and meaning, if via different registers than Carey. As she looks for traces of Jefferson’s former slave, James Hemings, within the digital archive of Jefferson’s papers, she asks us what lies beyond meaning due to the gaps and silences of the archive. If dead bodies have not been neatly archived, how might we put into motion the ghosts of the archive, not as a project of recovery but as sites of (im)possibility and responsibility? How can we not only detect unrecorded stories, but also make them expand with meaning? How might techniques of surface reading mediate between close and distant modes of reading while also moving from theory to digital process? In answering these questions, Klein at once engages, critiques, and expands the methodologies of the digital humanities in order to bring together archival theory, the study of race, and emerging practices in data visualization. Following the work of Stephen Best, Saidiya Hartman, Sharon Marcus, and others, Klein

animates the archive as a “site of action” rather than as a “record of fixity or loss” and does so through a series of data visualizations that highlight elements of labor, relationality, and power. Thus, she pushes the digital humanities to engage explicitly with critical theory while also valuing the degree to which digital techniques and tools can force the scholar to come to terms with his or her own critical agency, illuminating “not only *what* but also *how* we, as critics, come to know.” Even as Klein illustrates emerging possibilities for a theoretically rich visualization practice, she also urges us to remember the abuses and complexities of visual display across history and to question the positivist impulses that undergird much contemporary work in visualization.

Jeff Scheible continues these investigations of marking up, of gaps, and of silences. In an essay rich in sophistication, wit, and style, Scheible turns to that seemingly innocent punctuation mark, the parenthesis, in order to explore the multiple ways such marks work across a variety of cultural documents. He provocatively mines the role of the parenthesis within critical theory, especially as this particular form of markup allows us to think through and represent the deferred or the missing. Starting from an analysis of Derrida’s use of parentheses in “Signature Event Context” (1988), in which Derrida argues that any mark can break with its context and engender new contexts; then moving on to the parenthetical structure of the television laugh track; and finally to a consideration of textual treatments in contemporary cinema; the essay argues that we need to understand new media itself as parenthetical, as challenging textual authority and master paradigms. While firmly grounded in poststructuralist theory, the piece also takes up the terrain of the digital humanities, calling, as does Klein, for a deeper engagement of critical theory within this newer field. Unlike Klein or Carey, Scheible returns us to techniques of close reading, suggesting that such methods still have great relevance in the age of new media. He calls for a digital humanities less focused on massive datasets and distant scales and more attuned to the relevance of a single mark of punctuation (a relevance that writers of software code know all too well). Certainly new media has reinvigorated textual practices, from the emoticon to the shorthand of texting, producing an explosion of textuality. Scheible contends that the parenthesis emerges as a key guide for navigating this new landscape, helping to orient our reading practices in an era of conflicting protocols and transmedia production.

Richard Jean So foregrounds yet another type of silence within media studies by exploring the Atlanticist bias of information theory and reframing it in a transnational context. Through the narratives of Wilbur Schramm (one of the “fathers” of American communication studies) and Eileen Chang (a successful Chinese author who worked for the United States Information Agency in Hong Kong), So provides an account of the intertwining of information and literature during the early Cold War. Here, Marche’s binary opposition between literature and data breaks down substantially. So tracks the ways that the USIA instrumentalized literature to encode messages that transferred meanings across subjective worlds. Chang’s fiction was “weaponized,” as So puts it, to challenge Chinese propaganda in the 1950s. At the same time, Chang’s literary production exceeded its use as propaganda. Her texts, especially her novel *The Rice Sprout Song* (1955), sought to perceive and shape reality by approaching it as a complex, kinetic process. So’s account shows how literature, in distinction to other forms of information, proliferates like gossip and compresses dynamic totalities through narrative and figurative language. For contemporary critics, Chang’s work in particular opens up complex histories of information warfare between the United States and China, and the effects of these adversarial relations on the psyche of the mediators who participated in this process. It also serves as a compelling prehistory to contemporary forms of information warfare that are dominated by multimedia productions and social networking.

Like So, Patrick Jagoda examines artistic mediations of mid-twentieth-century history and warfare. Instead of focusing on the capacity of literary texts to vivify “facts” in the service of strategic propaganda, Jagoda turns to computer games and videogames as they proliferate in the late twentieth and early twenty-first centuries. Since the early 1960s, digital games have opened up a new sensorium that approaches history not only through text, images, and audio, but also through the unique affordances of procedural activity, spatial storytelling, and interactive play. Jonathan Blow’s independently produced American videogame *Braid* (2008), Jagoda’s core case study, historicizes the atom bomb and the Cold War military-industrial-media-entertainment network that grew up alongside it. At the same time, *Braid* produces a self-reflexive reading of the videogame form’s interpenetration with twentieth century technoscience in both its military and corporate modes. *Braid* appropriates the features of game form to develop a formally

experimental analytic of *processing*—one that is aesthetic, affective, and interactively experiential as opposed to cerebral. The game uses gameplay mechanics to complicate how history is typically thought and to imagine how it might be mediated in different ways. Jagoda's essay explores how historical events embed themselves with the structure of both individual desires and popular new media forms. In continuity with Carey and Klein, Jagoda explores ways in which technologies mark human thought and action, and in which historical archives are nested within us, sometimes becoming visible through reactions, behaviors, and styles of play. Jagoda contends that digital media such as videogames produce new critical blind spots, but they also introduce medium-specific ways of thinking through complicities with emergent technological protocols and systems of control.

While all of the other contributors to this special issue emphasize the role of cultural criticism and literary theory within the digital humanities, Gary Hall, in the final polemical contribution to the print issue, argues for a generative incommensurability between these methods. Hall contends that, in its early years, the computational turn in the digital humanities has been largely unidirectional. Since the 1990s, the humanities have started to show a concern (both anxiety and curiosity) about the rise of digital media and big data methods. In recent years, humanities scholars have started to explore ways that online archives, text mining, and social network analysis might allow us to ask new questions and make new discoveries about our core objects. At the same time, a reciprocal perspective on the computational turn—an inquiry into what the humanities might offer computing—has not been comparably robust. As Hall argues, digital humanists have too often bracketed or dismissed the lessons of critical theory and the culture wars of the 1980s in favor of digital tools and data-oriented methods. Hall stresses, however, that theory remains critical to explaining the significance of new methods and the meanings of emergent technologies. An unreflective celebration of computational practice risks reinforcing long-held assumptions and biases instead of adding rich complexity to centuries-old exchanges in the humanities. Hall observes that critical theory cannot be assimilated by the digital humanities, and yet such philosophical self-reflexivity has a value when practiced alongside, and sometimes in opposition to, quantitative modes of analysis.

If Hall worries that there is a certain incommensurability between the goals of critical theory and those of the digital humanities, other essays in this volume mine fruitful points of juncture across the theory/practice divide. In particular, Lauren Klein integrates the theoretical paradigm of surface reading with particular visualization tools in order to gesture toward those absent figures who haunt our archives. As editors we too are interested in the possibilities that specific tools offer for new forms of scholarly production, and thus this special issue is itself a hybrid undertaking for it, as mentioned previously, also includes four “born-digital” online-only essays. Each of these essays is written (one might say “made”) in Scalar, a new open-access platform that enables scholars to write long-form digital scholarship and to incorporate diverse media from multiple sources for truly multimodal authorship.³ At its simplest level, Scalar allows scholars to use visual and aural materials in their essays in a way that attends to such evidence with particular care, heightening practices of close reading and encouraging deep and contextual relationships to and between digital archival materials. At other levels, Scalar also encourages an engagement with the affordance and possibilities of database-driven digital authorship, including practices of recursivity, nonlinearity, tagging, design, and annotation. Scalar was developed in deep, iterative collaboration with a number of scholars working in the traditions of critical theory, visual studies, activism, ethnic studies, and gender and sexuality studies. Thus, it is a platform that values multiplicity, intersectionality, and entanglements of all kinds in its very conception and design, even as it attempts to move beyond the plane of speculation and imagination toward sustained usability. We are grateful to the authors who agreed to produce their work in Scalar and are pleased that *American Literature* and Duke University Press have taken up this new form. These pieces are not “supplements” to the special issue; they are integral to it, vibrantly illustrating possible futures for scholarly production. They are also available as free, open-access extensions to a subscription-based journal, pointing the way toward different forms of circulation for scholarly knowledge that might more closely align with progressive politics.

In “Cesar Chavez’s Video Collection,” Curtis Marez joins Lauren Klein in her efforts to activate the archive and bring it into motion as he opens with a grainy, lovely clip of Chavez dancing. In a wide-ranging

essay on the use of visual technologies by the United Farm Workers (UFW), Marez unpacks an uncatalogued collection of VHS cassettes held at the Walter P. Reuther Labor Library in order to track the diverse visual literacies wielded by Chavez and the UFW. We tend to associate technological literacy with our own digital era, but this essay powerfully reminds us that mastering technology (or being mastered by it) has been a defining feature of modernity. Marez utilizes the “path” function in Scalar to take us on a tour of a set of films and television shows that were important to the UFW as they constructed counternarratives to the oppressive visual field offered up by agribusiness. Other paths juxtapose the visual productions of agricultural corporations—an image set rich in technological fetishism, suggesting that tractors like algorithms can be fascist—with a vibrant speculative imaginary produced by the UFW with the goal of cultivating an activist spectator. In the visual materials created by the UFW, we come face to face with the materiality of labor and the carceral dimensions of workers’ camps, but we simultaneously experience the joy of technological DIY production and of making. The workers also participated in a networked form of grassroots politics, connecting the local nodes of struggle in the fields of central California with international progressive political movements. As in the essays by Carey, So, and Jagoda, we are reminded of the deep imbrications of technologies of vision and communication with the military and the state, but we also come to see the multiple possibilities latent in all media.

Marez’s research richly articulates the degree to which media are always sites of struggle, particularly as he limns the potentially utopian undercurrents of a popular television series like *MacGyver*. Jeffrey Shandler is also concerned with the mediations of popular memory, particularly as they shape personal recollections of the Holocaust. In a Scalar piece along with a companion essay in PDF format, Shandler continues the querying of the archive at work across many of the essays collected here. He takes as his object of study the USC Shoah Foundation Visual History Archive (VHA) and sets out to read the archive “against the grain” of remembrance and memorialization that is the archive’s intended goal. His specific interest is in tracking the presence of Steven Spielberg’s 1993 film, *Schindler’s List*, throughout the VHA’s collected testimony, mapping out the various complex mechanisms by which the film haunts the archive and marks up the survivors’ own memories. This investigation dovetails with Klein and

Marez's archival endeavors, as Shandler succinctly underscores the impossibility of remembering or of "freezing the past" apart from processes of mediation. In attending to not only the testimonies themselves but also to the VHA's indexing system, the very medium of video, and the VHA's protocols for collecting testimony, he carefully details mediation in action. Shandler's Scalar piece complements the text-based PDF and its linear argument, but it also extends a heightened focus to the videos themselves. These materials are not there to serve simply as illustrations of Shandler's written analysis; rather, he attends to the visual evidence of the testimony with care. He directs our attention to the processes of remembrance as they happen in and through their mediation.

Steve Anderson's "Chaos and Control" also takes up the role of technology in the popular imagination in a time frame that overlaps with the periods examined by Marez, Shandler, and So. His particular focus is on the various ways that commercial media undertook critiques of computation at the very moment that computation began to emerge as a dominant cultural logic. He takes such mass-media critiques seriously, engaging them on their own terms through a series of close readings, techniques familiar from the humanities' toolkit. In so doing, Anderson joins the likes of Raymond Williams, Carolyn Marvin, and Lisa Gitelman in resisting a deterministic reading of these technologies while also reminding us that all technologies were once new. Along three fairly linear paths, Anderson carefully details various modalities of critique: the libertarian, the humanist, and the socially normative. A reader might simply click along these paths and read the essay as he or she would a print essay. Except, of course, for the videos and other media. Anderson's piece makes extensive use of media as evidence, including over a hundred clips and images. As such the piece is at once a mini-archive and an essay, pointing the way toward new media-based forms of argumentation. The media is housed in Critical Commons, a project committed to expansive notions of fair use and open access. Among these media files is a series of video essays produced by Anderson in a genre he dubs "critical juxtapositions." These files are visual essays in themselves requiring new forms of viewing and attention from the reader-viewer. In exploring these elements of mediation (both within culture and in our scholarship), Anderson also highlights the importance of media studies and alternative media production to the broad playing field that might comprise the digital

humanities. While many dominant narratives tend to frame the digital humanities as largely text based, media studies scholars can extend our DH obsessions beyond TEI, visualization, and data mining toward other aesthetic, creative, and design-based traditions. Given the prevalence of video and images on the vernacular web, such expansions are critically important if the digital humanities are to engage culture (and critique) with both breadth and depth.

Like Anderson, Jentery Sayers examines the relationship between new technologies and popular culture. He studies this intersection through the earlier history of a commercially failed technology, the telegraphone, as it appears in texts published between the 1870s and 1910s. The telegraphone, originally patented by Valdemar Poulsen in 1898, sought to record sound on a steel wire or strip. In his media archaeology of early magnetic audio, Sayers negotiates technical, business, cultural, and literary histories, which produced and sustained a network of perceptions and practices around this emergent technology. The essay approaches the telegraphone as an object imbued with historically specific human desires but also frames its account as a pre-history for a culture of computation and digital media that has relied on magnetic storage as a basis for data expressions. Although Sayers turns to a range of historical documents, he focuses ultimately on the scientific detective stories of American writer Arthur B. Reeve, who incorporated forensic methods and emerging technologies (including the telegraphone) into his tales. Instead of treating these stories as mere representations, this essay tracks the co-emergence of technologies and cultural phenomena, including communication networks and literary genres such as detective fiction. Its delivery in *Scalar* reminds us that medium and message are often intertwined.

To conclude, the algorithm may indeed tend toward the fascistic, but, like literature, is it very much a cultural production. While fascism may love its machines, it originates in human behaviors, desires, ambitions, and histories. Accordingly, new media explored in this special issue—both as channels of communication and material expressions—open up different ways of understanding American literature, culture, and history. New media studies mark neither a terminal crisis in the humanities nor a minor methodological supplement. The field challenges us to expand our thinking about print cultures of the past and the digital cultures (transmedia, interactive, procedural, networked, transnational) of the present. It is by occupying the “and” between new

media and American literature and by addressing the ways that media and knowledge—as the term *literature* reveals—have historically constituted each other that we can sharpen and develop new critical tools and trace anew the ghosts that haunt us.

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Notes

- 1 Various inflections of the politics of the digital humanities might be gleaned from diverse collections organized via that term, from the early *A Companion to Digital Humanities* (Schreibman, Siemens, and Unsworth 2004) to the more recent *Debates in the Digital Humanities* (Gold 2012) and *Digital_Humanities* (Burdick et al. 2012). Analyses of and attention to issues of power, ideology, identity, gender, sexuality, race, and class vary widely across these volumes. Also of relevance are a variety of recent critiques of the digital humanities emerging from younger scholars affiliated with groups such as the Humanities, Arts, Science, and Technology Advanced Collaboratory (HASTAC), #transformDH, and #DHPOCO, who have all pressured the field to engage more explicitly with critical theory and with the tensions inherent in tool building and tool use. An important element of the more recent work in DH (and of critiques of DH) has been the sketching of alternative genealogies for the field, including traditions in media studies and computational art and design, fields not exclusively focused on text-based analysis or creation.
- 2 See the TEI website for a wealth of information about the consortium's goals, history, and archives: www.tei-c.org/index.xml.
- 3 More information about Scalar is available at scalar.usc.edu. Scalar is a project of the Alliance for Networking Visual Culture, a collaboration in which both Wendy Chun and Tara McPherson have been deeply involved, as has our contributor Steve Anderson. Special thanks to the Scalar development team for their assistance with these projects, especially Erik Loyer, Craig Dietrich, Alexei Taylor, and Micha Cardenas.

References

- Benjamin, Walter. 1968. "The Storyteller." In *Illuminations*, 83–110. New York: Harcourt, Brace and World.
- Burdick, Anne, et al. 2012. *Digital_Humanities*. Cambridge: MIT Press.
- Gitelman, Lisa. 2006. *Always Already New: Media, History, and the Data of Culture*. Cambridge: MIT Press.

- Gold, Matthew K., ed. 2012. *Debates in the Digital Humanities*. Minneapolis: Univ. of Minnesota Press.
- Hayles, N. Katherine. 2008. *Electronic Literature: New Horizons for the Literary*. Notre Dame, IN: Univ. of Notre Dame Press.
- Kirschenbaum, Matthew G. 2008. *Mechanisms: New Media and the Forensic Imagination*. Cambridge: MIT Press.
- McLuhan, Marshall. 1962. *The Gutenberg Galaxy: The Making of Typographic Man*. Toronto, ON: Univ. of Toronto Press.
- Parikka, Jussi. 2012. *What Is Media Archaeology?* Cambridge, UK: Polity Press.
- Schreibman, Susan, Raymond George Siemens, and John Unsworth, eds. 2004. *A Companion to Digital Humanities*. Malden, MA: Blackwell.