Critical Literacy, Critical Engagement, and Digital Technology:

Convergence and Embodiment in Glocal Spheres

Karen E. Wohlwend
Indiana University, Bloomington
and
Cynthia Lewis
University of Minnesota, Twin Cities

This chapter examines critical literacy within an evolving digital and global landscape.

The last decade has produced a steady stream of research focusing on digital literacy practices.

Those who study these practices have been engaged in the making of a discipline as they explore how readers and writers negotiate the demands and affordances of literacy practices that employ digital technologiesⁱ.

With this theme of transition in mind—the changing landscape of literacy and the subsequent re-making of a field—it is no wonder that many researchers, too, have been operating in a transitional space, often studying digital literacies through the lens of print literacies. At the same time that researchers have marveled at the competence and engagement that research participants demonstrate in their use of new technologies, many studies have emphasized how digital technology can foster the development of print literacy skills such as comprehension (Coiro & Dobler, 2007), argumentation (Beach & Doerr-Stevens, 2009), and audience awareness (Lewis & Fabos, 2005). However, these studies show that skills traditionally associated with print literacy, are accomplished through the construction of a new ethos (Lankshear & Knobel, 2007) that is "participatory," "collaborative," and "distributed," rather than "individuated" and "author-centric" (p. 9).

In some respects, critical literacy has never been a "traditional" print literacy in that it has been consistently associated with challenging dominant assumptions and inequities including, as Siegel and Fernandez (2000) argued, "the ways in which literacy instruction participates in the production" (p. 149) of unjust and inequitable schooling. Although perhaps not best classified as "traditional," a strand of research on critical literacy and technology focuses on building upon print approaches to achieve critical readings of online texts. Kellner (2004), argues for the importance of this approach to critical literacy in digital environments in which "traditional print literacy takes on increasing importance in the computer-mediated cyberworld as people need to critically scrutinize and scroll tremendous amounts of information, putting increasing emphasis on developing reading and writing abilities" (p. 17). One example of this focus on critical scrutiny is research conducted by Baildon and Damico (2009) which examined high school students' efforts to determine the credibility of the video *Loose Change* (http://www.loosechange911.com/), which argues that the U.S. government covered up the truth about 9/11. In this work and other related projects (Carter, Damico, & Kumasi-Johnson, 2008), the researchers build on a model of print literacy that includes a critical lens for analyzing author manipulation. The research findings of the Loose Change study undercut facile comparisons between print and online literacies in that the students' search for credibility was deeply complicated by intertextual modes and discourses both within and outside the video. Thus, when students tried to draw upon prior knowledge about determining credibility, their efforts were confounded by the affordances and challenges of multimodality.

This chapter focuses on research—such as that by Baildon and Damico—that examines the changing nature of critical literacy within digital and global environments. What does critical literacy mean in relation to digital technology use? What does it look like? What are its properties? Our scope is limited to research involving children and adolescents—both in and out

of school—with a focus on two dimensions of critical literacy that take into account the multimodal affordances of digital technologies:

convergence: the collision and merging of old and new media as well as corporate and user-driven media

embodiment: the immersion of bodies and emotions in digital spaces as well as the ways in which bodies and emotions are represented in and shaped by digital spaces

We have not attempted to be comprehensive in our review of literature, but rather have decided to draw on a few studies within each key category that we deem to be important in understanding critical engagement and technology. Our focus is on critical literacy in transition and the promise of new directions at a time that demands a critically literate public in the face of changing economic and informational flows brought on by globalization. Globalization is marked by increased movement of objects, images, persons, and discourses (Appadurai, 2000). The globalized citizen is imagined as enterprising (Apple, 2001), an ongoing project (Arnett, 2002), shape-shifting (Gee, 2004), and translocal (Appadurai, 2000). In turn, this redefinition of citizenship as fluid and translocal shapes young people's expectations for texts and the ways in which possible identities, discourses, relationships, and futures are represented and broadened by them (Lewis & Dockter, in press; Medina, in press).

From Critical Literacy to Critical Engagement

Over a decade ago, Peters and Lankshear (1996) focused on the intersection of critical literacy and technology with an early analysis of the ways that digital texts reposition readers and writers, sometimes opening new spaces for criticality and reframing. These features include: interactivity, which disrupts reader-writer distinctions; multimodality, which reconfigures the

relationship between word, image, and sound; emerging discourses, which interrupt the privileging of academic discourse; and easy dissemination, which deconstructs the hegemony of publishing, making the way for more participatory authorship. All of these features create opportunities for adopting a critical stance that, according to Peters and Lankshear, involve a combination of distance (for making critical evaluations) and closeness (for in-depth knowledge).

Few theorists in the intervening years have focused on the intersection of critical literacy and technology (see Fabos, 2008, for an exception). The practice of critical literacy, however, has received much attention, including discussions of its theoretical roots (Morgan, 1997), goals (Lewison, Flint, and Van Sluys, 2002), and dimensions (Lewis, Ketter, & Fabos, 2001; Janks, 2002). Lewison, Flint, and Van Sluys identify four goals of critical literacy: disrupting the commonplace, interrogating multiple viewpoints, focusing on sociopolitical issues, and promoting social justice through action. Lewis, Ketter, and Fabos identify three dimensions of critical literacy: how texts position readers; how readers position texts; and how texts are positioned within sociopolitical contexts. Similarly, dimensions of critical literacy put forth by Janks—diversity, domination, access, and design—signal the complicated relationships that are necessary to enable critique of the hegemony of dominant texts in relation to diverse cultural and sociopolitical resources and with the possibility of agentic responses through productive design. Janks (2002) argues for alternatives to rationalized approaches to critical literacy in which we detach and coolly deconstruct lived language in ways that leave selves untouched:

We expose the faulty logic, look for the silences in the text, criticise the values that underpin the text and we reveal the underlying assumptions. When we have finished, students can produce a reasoned critique that is not in any way transformative. (p. 3)

The dimensions of engagement, emotion, and aesthetics are generally absent from accounts of critical literacy, as Misson and Morgan (2006) note, but these absences are reason to revise rather than scrap critical literacy and its many strengths. In this chapter, we think of critical literacy in terms of critical distance *and* immersion, a process both analytic and playful, resistant and emotional. This process merges the seemingly contradictory stance toward literature that Toni Morrison describes in her book *Playing in the Dark: Whiteness and the Literary Imagination* (1992), when she discusses her process of reading a particular text as an illustration of "how each of us reads, becomes engaged in, and <u>watches</u> what is being read all at the same time" (p. x). It is this complicated enterprise — combining the presumably unselfconscious act of engagement with the decidedly self-conscious act of watching that interests us and moves us to use the term "critical engagement" when discussing the future of critical literacy.

We argue that the goals and dimensions of critical literacy remain important but require expansive definition to keep up with 21st century literacy practices. Proliferating technologies and colliding global systems make it paradoxically easier and harder to track the echoes, emanations, and effects of widely dispersed, fleeting digital texts. Burbules (2004) asserts that virtual spaces are particularly conducive to engagement in that they potentially promote the interest, involvement, imagination, and interaction that result in immersion. Our challenge is to reinterpret critical literacy for the new commonplace: visual and embodied texts, digital technologies, interactive media, and virtual spaces circulated through global flows that are at once universalizing and fragmenting. We do so in the next sections of this chapter, focusing on critical engagement through the dimensions of convergence and embodiment that are foregrounded through the affordances of digital technology as they play out locally and in a global sphere.

Convergence

In dense digital confluences, distinctions blur among social dispositions and identities as consumers, producers, and learners, for those who can afford expensive gadgets and broadband connections. Critical engagement with convergence unpacks dense meanings and social affordances created by overlapping and interconnected technologies but also makes transparent the motives and influence of information and communication providers concentrated in a few mass media conglomerates. In a commodified view of literacy and technology, production is a top-down process in which a small number of producers create and publish books and media to distribute and sell to mass markets. From this perspective, critical issues involve capital expenditures, hardware costs, and usage patterns, raising concerns about centralized ownership among producers and inequitable access or competence among consumers according to a digital divide that explains disparities along fault lines of class, education, gender, and age. Gounari (20009) views the Internet as a site for public pedagogy that is more often consumerist than democratic. With similar concerns, Burbules and Callister (2000) and Fabos (2004, 2008) argue for careful, critical readings of Internet sites and texts that uncover the politics of representation and commercial sponsorship. A few studies examine adolescents' uses of technology that involve this kind of critical practice. For example Guzzetti & Gamboa (2004) study adolescent girls' creation of zines that challenged oppressive gender representations, and Humphrey (2006) reveals the semiotic resources used to create solidarity in adolescents' weblogs created for the purpose of political activism, with an emphasis on how they vary depending on the size and familiarity of the audience.

Critical engagement considers how quality of participation enables or limits the ability to produce and not just consume and how participation affects life chances. Comber and Janks

(2006) remind us that although digital artifacts zip around the globe, bodies remain stuck in the local. Mobility is especially limited for people in high-poverty communities, priced out of the possibility of global travel and confined to the operating hours of libraries, schools, and public sites for internet access. In contrast, users with the latest technological resources enjoy interactive and converged technologies as facile pathways for consuming, producing, and representing selves and others within participatory cultures.

Participatory Cultures

A participatory culture is a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another (at the least they care what other people think about what they have created). (Jenkins, Purushotma, Clinton, Robison, & Weigel, 2006, p. 3)

Participatory cultures enable individuals to connect with others with similar aesthetic, social, and political goals. Online groups who share a passion for the same media, products, or interests have been described variously as knowledge communities (Jenkins, 2006), affinity groups (Gee, 2004), or fan cultures (Beavis, 2009). A unifying aim of such groups is production of new content and circulation of commentary on insider issues that build group cohesiveness and legitimates members who contribute valued information.

Critical engagement with participatory cultures looks at the way digital literacy practices legitimate full membership in online communities within spheres of influence that ripple out from these groups. Jenkins (2006) identifies four key forms of participation in online communities, each related to particular kinds of digital texts: affiliations (e.g., in social networks such as Facebook, nings), creative expressions (e.g., zines, mashups), collaborative problem-

solving (e.g., wikis), and circulations (e.g., podcasts, blogs, tweets). Converged environments produce hypersociality (Ito, 2007) through interactions that are "wired, extroverted and ...augmented by a dense set of technologies, signifiers, and systems of exchange" (p. 42). Hypersociality constitutes distant yet active social relationships that enable collective mentoring into each digital culture's interpretative, expressive, and strategic practices with new kinds of texts.

Power relations map onto the intersections of social relationships and digital literacies where expertise is measured by who reads whom and quantified by hits from Facebook friends, Twitter followers, or blog readers. Critical engagement considers how the desire to belong interacts with individual agency as well as members' complicity in circulating practices, media, and discourses with disparate social effects. Pascarella (2008) argues that although youth often have facility with new media environments, they may not be adept at the critical processes necessary for analyzing the cultural practices and institutional norms of these environments.

Collective Interactivity

Merchant offers a way to compare the "dispersed interactivity" of digital participation through a matrix that varies along two dimensions: timing and collectivity (2007, p. 123). Synchronous forms range from instant messaging involving one-to-one relationships to chat rooms, virtual worlds, and online games involving "many-to-many" public relationships. Asynchronous forms vary in collectivity from "one-to-one" personal emails to "one-to-many" blogs to "many-to-many" wikis, discussion boards, and Flickr or YouTube sites. Massively multi-player video games are quintessential collective interactive texts, requiring sustained collaboration and collective cohesion embodied by multiple players cooperating with interactive

media to sustain a fluid and reactive text. Such texts provide an opportunity for productive critical engagement through interactive, immersive texts that put more control over the narrative in the hands of multiple players/readers than one-player video games, films, or e-books.

Interactivity enabled by portable and ubiquitous connections between fans, electronic technologies, and media products support the development of collective imaginaries (Appadurai, 1996). Creativity is a function of collective action in wikis, fan sites, and online game communities where participants work together to produce content and influence media sources by buying, downloading, creating new uses for products, attracting more consumer-producer participants, and reshaping media to create new content. Hierarchies tend to flatten in interactive environments where knowledge is produced collaboratively and anonymously (Black, 2009; Gee, 2004). Knowledge-building in participatory cultures fuels consumer interest and buying which prompt producer response and increased production which enable more buying, a cycle that intensifies the effects of productive consumption (de Certeau, 1984), creating global trends and fads.

Interdiscursivity

Online knowledge production merges discourses from media, popular culture, and academic disciplines, creating intertexts and interdiscursivity that blur traditional distinctions among academic disciplines and popular culture. Tensions among overlapping technologies and literacy practices arise when the intertexts they produce bring discourses into contact with each other. Carrington (2005) describes the case of a 13 year-old Scottish student who turned in the following back-to-school essay written in the abbreviated style of text messaging and submitted via her cell phone.

My smmr hols wr CWOT. B4, we used 2go2 NY 2C my bro, his GF & thr 3:- kids FTF. ILNY, it's a gr8 plc.

Translation:

My summer holidays were a complete waste of time. Before, we used to go to New York to see my brother, his girlfriend and their three screaming kids face to face. I love New York. It's a great place. (Carrington, 2005, p. 161)

This "txt" traveled beyond the student's classroom and her teacher's response; it was picked up by BBC news service websites, reported in international newspapers, and discussed on Australian radio talk shows. Intertwined texts worked together to produce layered social constructions, "enmeshed in a discursive chain which linked txting to youth to declining standards to poor academic achievement to social breakdown" (p. 163). This intertext represented different social practices to different audiences when situated in discourses of standards and institutional accountability, teachers' integration of popular culture into school curricula, and economic fears about rapidly changing technologies and literacy practices.

Discursive clashes, prompted by text traversals, open opportunities for institutional discourse to reinforce the imperative of conventional standards and "proper" English. Similar discursive disciplinary effects can happen when popular media is imported into classrooms and educators end up domesticating out-of-school literacies by bringing them under the control of the institutional discourses, a phenomenon that Lankshear and Bigum term "old wine in new bottles" (1999, p. 455). Converged texts capable of traversing disciplines and institutions across online and offline contexts require critical scrutiny of historical traces and trajectories as well as immediate screen content (Damico, Baildon, & Campano, 2005). Critical engagement tracks how meanings shift in traversals of print, image, audio, or video messages across pages, screens, and discourses and how convergence plays out in simultaneously expanding, conflating, and proliferating functions, sources, and modes (Myers, Hammett, & McKillop, 1998).

Embodiment

Immersion and Attachment

Critical engagement is active engagement, embedded in physicality, emotion, and sensation, that reads bodies as sociopolitical texts and writes with bodies to produce identity texts. Identity texts in digital cultures take diverse forms that merge texts and bodies: gamers, bloggers, avatars, media characters, reality television programs, or fan fiction narratives. These converged texts blur distinctions between the virtual and the "real," between online projected identities and everyday selves (Leander & McKim, 2003).

Avatars also maintain a sense of personal space to one another that mirrors that of offline practice. While it would be technically possible to walk an avatar through another one, avatars walk around one another... (p. 229)

Critical engagement attends to complicated relationships between children's and adolescents' popular media desires and gendered, raced, and classed identity expectations, understanding that critical literacy teaching all too often ends in reproducing rather than transforming stereotypical identity performances despite curricular social justice goals. Media franchises and brand affiliations meld into identity performances and emotional attachments; desires, pleasures, and identities are expressed through embodied performances and displays with favorite video games, films, celebrities, or designer products. Gender performance is a prime feature of digital game play on media websites and social networks such as Barbie Girls—a virtual world steeped in "pink technologies" that merge the Barbie brand, hyperfeminine identities, enticements to consume, and electronic goods (Marsh, 2008, in press). Global distribution of hetero-normative gendered discourses through children's media websites (e.g., Bob the Builder, Disney Princesses) and social networks suggests the need for curricula that provides critical engagement with these glocalized identity texts.

Hull and Nelson (2005) argue that the power of multimodality lies in its co-present modes that work to achieve something larger than any of its parts, framing narrative elements and the audience-author relationship in a way that combines emotion, cognition, and learning. In their study of critical engagement and raced identities in an urban high school English class, Lewis & Dockter (2008) view emotion as structured through ideology (Boler, 1999) and, therefore, central to critical literacy. In their study of critical engagement in a high-poverty high school, they found that although the teacher framed a discussion of the film *Pocahontas* to contest dominant white culture and representations of native versus white female sexuality for two African American young women, the discussion was more than scholarly. Instead of engaging in critique, these students responded with strong emotion in the face of mediascapes and social worlds that cast them as hyper-sexual. Emotion often reveals underlying ideologies through an act of intensely involved participation or immersion that results in important understandings about texts and discourses. Zembylas and Vrasidas (2005) call this "critical emotional literacy."

In research on identity and positioning related to the media art produced by students in a Canadian alternative high school (Rogers &Schofield, 2005; Rogers, Winters, & LaMonde, in press), the researchers found that students moved explicitly from image to ideology, using their video and other multimodal productions to critique the discourses that marginalized youth—themselves and others. To create this critically conscious media art, students used what the researchers call "discursive resources" (Rogers, Winters, & LaMonde, in press) to engage in "imaginative, biographical, and spatial practices" (Rogers & Schofield, 2005, p. 216). In all of the products described across the two reports of the study already cited, students drew heavily on their own biographies and the socio-spatial worlds that shaped their lives. Critical engagement in

multimodal representation flourished even after the course was over, as is evident in the comments of one student concerned, a year later, that her digital photography project may have contributed to stereotyping Aboriginal youth.

The inseparable nature of meaning and being in participatory cultures suggests the need to scrutinize how digital literacy practices recruit and immerse members in embodied ways of expressing passions, attachments, and affiliations. Embodied literacies such as play and drama evoke critical interpretations and digital representations that are deeply personal as well as fanciful, opportunistic, and improvisational. These "playful pedagogies" acknowledge the power of pleasure while problematizing dominant stereotypes through "irreverent play with meaning in which seriousness and rationality are replaced by irony and parody" (Buckingham, 2003, p. 162). Doerr-Stevens (in press) describes the strategic process of "glocal appropriation" used by a student in a university writing class to construct his online identity for an online roleplay. The student used both local and global resources—resulting in some contradictory identities related to race—in order to critique depictions of white American males and offer a more hybrid and fluid version of masculinity. Critical engagement taps into the performative and transformative power of multimedia identity texts, as in YouTube spoofs (Willett, 2008), student-produced films (Nelson, Hull, & Roche-Smith, 2008; Nixon & Comber, 2005; Wohlwend, 2009a), or fan fiction narratives (Black, 2009). These playful productions can be both an expression and criticism of affiliation. For example, fan fiction provides a way of spinning new storylines for favorite media or video game characters as a way to display fan knowledge and to remake prepackaged storylines. Black (2009) shows the transformative potential of digital literacy practices in a study of three adolescent English language learners writing in a popular online fan fiction archive. "When creating fan fiction, fans extend storylines, create new narrative threads, develop romantic relationships between characters, and focus on the lives of undeveloped characters from various media" (Black, 2009, p. 398). Film-making combined with children's media play creates embodied fanfiction, a prime site for productive critique. Wohlwend (2009a) found that kindergarten film-makers and actors had to negotiate emotional attachments to beloved Disney Princess characters and their desires to enact performances that were more personally satisfying (e.g., playing a comatose Sleeping Beauty or fending off an attacking dragon). When girls enthusiastically took up commercial media narratives, they encountered social limitations in passive princess identities, improvised character actions, and revised storylines to produce their own counter-narratives.

Research Approaches for Critical Engagement

Critical engagement complicates research designs with needs for converged methods that coordinate multiple perspectives and nuanced interpretations that attend to the "curious cocktail of effects from cultural and economic flows" (Luke & Carrington, 2005, p. 244). Research methods for critical engagement must track traces and trajectories beyond here-and-now activity, analyse "many-to-many" (Merchant, 2007) collective literacy practices and relationships, and remediate productive-consumption relations with globalization. Some promising conceptual approaches include:

Literacy Networks The study of literacy flows across multiple contexts looks at converging bodies, objects, and texts to understand how we make use of and are used by technologies.
 Leander and Lovvorn (2006) use actor network theory to track how bodies are translated into texts that move across literacy networks. Actor network theory researches technologies as not mere extensions of selves but as mergers in which social agents are not easily distinguished from their tools. Similarly, mediated discourse analysis tracks embodied practices to see how

power wielded through physical actions with multimedia and technologies shapes meanings and identities (T. Y. Lewis, in press; Wohlwend, 2009a).

- Nexus and Activity Systems Expanded forms of activity theory provides ways to trace interaction and power relations within and across online communities of practice (Beavis, 2009). Nexus analysis (Scollon & Scollon, 2004) reveals how these communities are situated in global systems and maintained by webs of tacit literacy practices.
- Semiotic Signs Digital media contain layers of sign-making and identity-construction: in games within games (Lemke, 2006), or internal and external semiotic perspectives (Gee, 2007; Wohlwend, 2009b) in video game play.
- Multimodal Spaces Multimodal analysis examines convergences in overlapping modes, for
 example in video texts (Jewitt, 2006) or embodied practices among children playing a
 computer game (Norris, 2002). Multimodal analysis coordinates multiple tactile, aural, and
 visual modes to understand how images, icons, gaze, actions, and physical proximity
 constitute digital literacy practices and spaces.

Critical engagement is built upon the legacy of critical literacy and rational deconstruction of logical structures of text. Critical interpretation and production of embodied literacies in digital cultures provides a way to address the complexity and complicity of desires, pleasures, and sensations bound up with readings (Janks, 2002) and to attend to overlaps, disruptions, and affordances among convergences, embodiment, and global flows.

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¹ We use two terms throughout the chapter: "digital technology(ies)," and "digital media." Our use of these terms depends on whether the emphasis is on the technology tool or the media. When we refer to published research, we use the term the authors employ.