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digital literacy studies: progress and prospects
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Information and communication technologies are transforming the way we read, write, interact, find and make use of information, and participate in public life (Coiro et al. 2008). The development and diffusion of these technologies thus present important challenges to the field of Literacy Studies.

Has our field been up to these challenges? In this chapter, I assess the theoretical and empirical work to date in examining literacy in the digital era and suggest some directions for future work. In conducting this assessment, I draw upon my earlier three-pronged framework for assessing the relationship between technology and literacy, that of change, power, and learning (Warschauer & Ware 2008). These points address, respectively, how literacy practices have changed, how politics and power shape these changes, and what the consequences are for literacy instruction and assessment in schools.

change: uncovering new literacies

Digital technologies have been portrayed as bringing about a ‘fourth revolution in the means of production of knowledge’ (Harnad 1991: 39), with the other three stemming from the development of language, writing, and print. Indeed, the changes in literacy practices occurring due to digital media use are undoubtedly the greatest since the development and diffusion of the printing press in Europe. And, in at least one sense, the current changes are even more impressive: whereas the impact of the printing press on literacy unfolded gradually over several hundred years (Eisenstein 1979), digital media has reshaped literacy
within a matter of decades, at least within the developed countries and the major urban areas of other nations.

There is wide societal recognition of the importance of new technologies in daily life and learning. Yet the precise nature of digital literacies is difficult to discern for those who hold the reductionist view that literacy can only mean phonetic decoding of text from a page. The field of Literacy Studies holds a much broader view of literacy as ways of making meaning with diverse semiotic resources and is thus able to uncover 'invisible literacies' (Baynham 1995: 246). A key theoretical contribution toward making visible the new literacies of digital media use was made by the New London Group (1996), which brought together ten major literacy scholars from Australia, Great Britain, and the United States. The group examined two important trends—(1) the increasing multiplicity and integration of diverse semiotic modes and (2) the growth in cross-language and cross-dialect interaction due to globalization—and situated these trends within broader changes of work, citizenship, and life in the post-Fordist economic era.

diverse semiotic modes

A member of the New London Group, Kress, has played a key role in further exploring diverse semiotic modes. He and his colleagues (Kress 2003, 1998, 1999; also see Kress & van Leeuwen 1996, 2001) have analyzed textbooks, newspapers, signs, clothing labels, and computer multimedia to examine the grammar of visual and multimodal design. Kress points out that while language and sound are governed by sequence and time, images are governed by space, display, and simultaneity. The development and combination of modes thus results in what he terms transformation (a reshaping of resources within a mode), transduction (the shift of semiotic material across modes) and synaesthesia (the qualitatively new forms of meaning which occur through transformation and transduction).

Kress's work on multimedia has been extended through the work of Hull and her colleagues, who have promoted and analyzed digital storytelling among urban youth and adults in California. Through their fine-grained analysis of a multimedia digital story composed in an after-school community technology project, Hull and Nelson (2005) demonstrate how the combining of image and text transcends rather than combines what is possible in each particular mode. In such layering, images can work to repurpose the words they accompany, modes become progressively imbued with the associative meanings of each other, and iconic and indexical images are rendered into symbols.
Other features of digital storytelling noted in this and a follow-up study by Nelson (2006) of undergraduate second language writers include a resemiotization (repurposing semiotic relationships) through repetition (with the repeated image serving to punctuate a story or take on more complex meanings as a story evolves), an awareness of language topology (i.e. the relationship between what written language says and what it looks like), and an amplification of authorship (with digital storytellers finding a deeper meaning of what they want to say through the process of adding and combining modes). As seen in case studies conducted by Hull and Katz (2006), this process of crafting digital stories helps enable urban youth to explore and craft new forms of identity and agency.

cross-language interaction

The nature of cross-language interaction and its relationship to identity has long been an important topic in new Literacy Studies (see, e.g., Blommaert 1992; Rampton 1995). Lam illuminates this topic in the digital era by investigating the cultural and linguistic hybridity that emerge when new forms of online interaction are combined with emigration, diaspora, and global communication. In one study, she highlighted how a Chinese immigrant to the United States combined Japanese kanji, emoticons, and songs with the global English of adolescent pop culture in his Website and online chats about a Japanese pop star (Lam 2000). As with the digital storytellers mentioned above, this immigrant youth was able to find outlets of expression denied to him in school. A second study by Lam (2005) explored second language interaction in a bilingual chat room through the experiences of two teenage female immigrants from China in the United States. The girls used a mixed code of English and Romanized Cantonese, switching back and forth from one or the other depending on interlocutor and topic of conversation. In many contexts, they preferred English, but added Chinese particles to English terms to target interlocutors who are part of their social network, signal their orientation to them, and negotiate relationships with each other. Other times, they assembled idiomatic expressions of English words and Romanized Chinese to create humor or to reflect how social relations are conducted in the Cantonese-speaking culture. All of these forms of interaction allowed the immigrant youth more possibilities to navigate between their native language and culture and those of their adopted home.

My own research on online communication in Egypt reinforces Lam’s findings and conclusions. Two colleagues and I examined the online
language use of a group of young Egyptian professionals in Cairo, almost all of whom had been educated partly in Arabic and partly in English (Warschauer et al. 2002). The study found that, among this group, English was used overwhelmingly in Web browsing and in formal e-mail communication, but that a Romanized version of Egyptian Arabic was used extensively in informal e-mail messages and online chats, albeit with much code-switching to English. The extensive use of English among this group reflected their elite background, their use of technology for professional purposes in a globalized economy, and the still undeveloped nature of text editors, e-mail clients, and other text software capable of handling Arabic script at the time of the study. Nevertheless, their use of Egyptian Arabic whenever possible allowed them, as in the case of the Chinese immigrants above, to express hybrid forms of communication and identity. As Lam (2006) explains in a recent theoretical overview, these new blended forms of online communication allow those who cross physical and societal boundaries to experience transculturation rather than acculturation.

new forms of social interaction

In the dozen years since the New London Group’s paper was first published, the architecture of the Internet has changed substantially. Today’s Web 2.0 (see, e.g., O’Reilly 2007) allows greatly enhanced forms of interaction through blogs, wikis, social network sites, and multiplayer online games, thus reshaping traditional notions of what constitutes authorship, audience, or textual artifact (see Warschauer & Grimes 2007).

Gee and his colleagues have turned their attention to literacy practices that emerge in these new online forms. Gee’s major focus has been on videogames; his influential book on the topic (2003) outlined 36 learning principles that he views as embedded in games that are often missing in schools. A particularly valuable contribution is Gee’s tripartite analysis of identity; with game-players having virtual identities (i.e. those of their characters in a virtual world); real-world identities (i.e. their actual self playing a computer game); and projective identities. The latter refers to both how learners project their own values and desires onto the virtual character and also how they see the virtual character as their own project in the making. In a follow-up book, Gee (2004) ties the concept of identity in gaming to a broader concept of identity in today’s network society, as shape-shifting portfolio people ... manage their own risky trajectories through building up a variety of skills, experiences, and achievements.
in terms of which they can define themselves as successful now and worthy of more success later' (p. 105).

Two of Gee's former students have carried out ethnographic research on online literacy practices. Steinkuehler (2007) examined the literacy practices of participants in a massively multiplayer game called Lineage, both within the game's virtual world (e.g. social interaction, in-game letters, and orally delivered narratives) and beyond (e.g. asynchronous discussion on online game forums, the creation of fansites and fanfiction). She argues that youth in this and other massively multiplayer games are satisfying much of what we say we want children to be doing in schools, as expressed, for example in standards published by professional organizations. She concludes that through reading, writing, and interacting in new online spaces, youth can transform the corporate-owned culture into raw materials for telling their own stories and forging their own communities.

Black, another former student of Gee, examined (2008) the literacy practices of English-language learners on Fanfiction.net, where thousands of people around the world contribute original works of fiction related to their favorite books, cartoons, comics, games, movie shows, animation, or other media. Black focuses in particular on the experiences of Nanako, a native speaker of Chinese and immigrant to Canada. At the time of Black's research, the 16-year-old Nanako had published more than 50 fanfiction texts on the site that had received more than 6000 reviews from other readers. Black demonstrates how Nanako exploited the social, textual, and technological elements of the networked community, and in particular, the vast feedback she received to scaffold and promote her literacy development and identity and self-confidence as a writer.

In reviewing the above examples, as well as other recently published research (see, for example, collections edited by Coiro et al. 2008 and by Knobel & Lankshear 2007, and a journal issue edited by Snyder & Prinsloo 2007), we can summarize some of the strengths of the literacies studies perspective in illuminating the nature of digital literacy. First, Literacy Studies closely attends to meaning-making, rather than just text-decoding. This orientation helps Literacy Studies scholars to interpret new forms of meaning-making with diverse semiotic resources. Second, the understanding of literacy as a social process aids Literacy Studies scholars in uncovering the kinds of literacy practices that take place through complex new forms of networked communication. Third, Literacy Studies focuses on the kinds of under-recognized literacy practices that occur in home, community, and
other non-school settings; this perspective enables Literacy Studies scholars to both value and understand literacy practices that are often ignored or derided in society at large, such as those carried out while playing online games.

Though there is much more terrain to explore in understanding digital literacy practices, the research to date, as reviewed above, provides a strong foundation for extending our understanding in the above-mentioned domains (e.g. digital storytelling, fanfiction, online games) and others as well (blogging, wikis, social network sites).

**power: an ideological model of digital literacy**

New digital literacies develop not in a vacuum but in the midst of broader social, political, and economic contexts. At the widest level, advanced capitalist countries are in the midst of a transition from industrial to postindustrial capitalism, which entails emphasis on the harnessing of information and knowledge rather than infusions of more capital and labor; a shift from material production to information-processing; a change from vertically integrated mass production to flexible and customized production by horizontal networks; and increasingly globalized organization of capital, production, management, labor, and markets (Castells 1996). This transformation means that the ability to use and adapt information technology has become ‘the critical factor in generating and accessing wealth, power, and knowledge in our time’ (Castells 1998).

Any examination of digital literacy needs to be understood in this context. As Street (1993) wrote in an introduction to the field of new Literacy Studies, ‘Literacy practices are aspects not only of ‘culture’ but also of power structures’ (p. 7), involving ‘fundamental aspects of epistemology, power, and politics’ (p. 9). The acquisition of literacy thus involves ‘challenges to dominant discourses, shifts in what constitutes the agenda of proper literacy, and struggles for power and position’ (p. 9). Street critiques what he refers to as the autonomous model of literacy, which suggests literacy functions outside of political contexts. Instead, he puts forth an ideological model, which emphasizes the need to carefully understand how issues of context and power shape the practice and meaning of literacy.

Almost all of the researchers cited above have attempted to challenge dominant discourses by examining, and indeed promoting, shifts in what constitutes the agenda of proper literacy. However, there is much more to accomplish in understanding how fundamental aspects of
power influence the development and practice of digital literacies. For example, much of digital literacy research to date has been carried out among those who are either relatively privileged or demonstratively successful with new digital media. Gee’s work on videogames is based to a considerable extent on his analysis of his own game-playing and that of his son; one wonders whether those who start out with lesser amounts of cultural, social, and human capital can exploit the learning potential of games in the same way. Lam’s and Black’s work is based on Chinese immigrants to North America, rather than on the larger and more marginalized Latino immigrant community. Hull’s work is based in a predominately low-income African-American community and carefully documents the intersection of new media use with community members’ sociopolitical reality; at the same time, it focuses on those who have taken the initiative to show up at a community learning center, persist in activities there, and successfully master a new digital genre.

Thus, in each of these studies, the researchers have taken as a unit of analysis those who have been successful in the practice of new digital literacies. In each particular case the motivation for that is well founded and the resulting scholarship is of great value to our field. Yet, taken as a whole, this body of research may present a less than complete picture of digital literacy practices today. For example, it is interesting to contrast their findings to those of a pair of sociologists who investigated typical digital literacy practices of diverse participants. Attewell and Winston (2003) spent several months observing and interviewing two groups of computer users at home and school. The first group consisted of African-American and Latino children aged 11 to 14 who attended public middle school; most came from poor and working-class families and all scored below grade level in reading. The second group consisted of school children from more affluent families who attended private schools.

The wealthy group studied by Attewell and Winston carried out empowering forms of communication. For example, a white, fourth-grade private school student named Zeke was a ‘political junky at ten years old’ (p. 124). He spent his online time reading up on the presidential inauguration, downloading video clips of politicians, and reading candidates speeches. To assist his candidacy for class president—an office that was not sanctioned officially by the teachers at his school—Zeke found a free website that allowed visitors to construct quizzes and modified it to develop an online voting system. With the cooperation of his rival for office, he told each child in his class to visit the Web page
for the voting system both to read the campaign speeches that he and his opponent posted and eventually to vote.

However, the low socio-economic status group for the most part engaged in far-different activities. Typical is Kadesha, a 13-year-old African-American girl. Kadesha and her friends spent much of their online type checking out rappers and wrestlers (who they referred to as their ‘husbands’), downloading their pictures as screensavers, and pasting images into reports (p. 117). They also went cyber-window shopping together, checking out everything from hot new sneakers to skateboards to Barbie dolls. The authors explained how Kadesha’s ability to exploit the Internet was greatly restricted by her limited reading and writing skills:

As image after image flashes by ... it becomes noticeable how rarely, how lightly, Kadesha settles on printed text. Like many of her friends, she reads far below grade level. So she energetically pursues images and sounds on the Web, but foregoes even news of her love interest if that requires her to read. (p. 117)

The challenge of going online with limited literacy skills followed Kadesha to school. For example, one of Kadesha’s teachers brought some young professionals to class to discuss what it takes to pursue a career. The students then went online for further information. Kadesha was interested in running a bakery, but abandoned her search after continually misspelling the word bakery in the search engine and coming up with nothing. Other classmates had similar problems with this and similar online tasks; in most cases, they either didn’t know how to spell the terms to be searched for or lacked the background knowledge required to make sense of search results.

It may well be the case that Attewell and Winston’s sociological framework overlooked some of the particular ‘funds of knowledge’ (Moll et al. 2005: 72) that Kadesha and her friends brought to the task of digital literacy. Nevertheless, their account of Kadesha’s limited repertoire of online abilities rings true, and it reminds one of Castells’ (1996) warning of a digital future divided between the interacting (i.e. those with the skills and capital to shape the multimedia content of the future) and the interacted (i.e. those who are recipients of multimedia content created by others).

The point is not that Kadesha and her friends are automatically destined to lives of digital impoverishment. To assert that would be a simplistic determinism on a par with an equally simplistic view that
computer access alone will overcome their challenges. Rather, we need to carefully analyze the constellation of conditions that contribute to or constrain the development and practice of digital literacies in particular contexts. We need to develop an ideological model of digital literacy.

I have tried to contribute to this effort. In *Electronic Literacies* (Warschauer 1999), I examined the use of new technologies for language and literacy instruction in four higher education contexts in Hawai‘i. The study indicated how the social context of instruction—including the background and socio-economic status of the students, the mission of the individual college and program in serving those students, and the pedagogical beliefs and expectations of the teachers involved (which tended to reflect the broader mission)—all shaped the kinds of digital literacy that were introduced in the classroom. Working class and immigrant students in a community college English course were taught vocational skills, such as how to design brochures. Future missionaries from the Pacific Islands in an undergraduate ESL class at a fundamentalist Christian college were taught strict rules of grammar use and composition, just as they were being taught the strict scripture of the Church. International students from East Asia in a graduate program at a public research university used technology to apprentice into academic discourse, reflecting the university’s scholarly approach for graduate education. Native Hawaiian students in a Hawaiian language class at the same public university used technology to express the values of their community and culture, reflecting the spirit of collective resistance that gave birth to the Hawaiian language program and the broader language revitalization movement in Hawai‘i. In none of these cases were students passive recipients—they too played a role in influencing the learning environment—but again in ways that reflected broader issues of politics and power. I concluded the book by pointing out that

> [f]or students of diverse cultural, linguistic, and class backgrounds to have a voice, they need more than an Internet account. Rather, they need knowledge of the languages and discourses of power, and opportunities to critically reflect on whether, when, and how to use them, as well as opportunities to develop and use their own dialects and languages as they wish. They need access to and mastery of a variety of media, and understanding of the ways that rhetorical structure and media interact. And they need chances to read, write, and think about issues of cultural and social relevance for their lives, as they work together with others near and far to collaboratively tackle authentic complex problems. (p. 174)
In a follow-up book, *Technology and Social Inclusion* (Warschauer 2003), I examined the issue of a so-called digital divide as well as efforts around the world to ameliorate it, for example, through the development of community technology programs. Through this I developed a model of what kinds of resources are required to help promote meaningful access to and use of technology, including physical resources (e.g. computers and Internet access), digital resources (e.g. online content and tools in multiple languages and appropriate to the needs of diverse users); human resources (e.g. knowledge and skills developed through instruction emphasizing critical inquiry and situated practice); and social resources (e.g. enhanced social capital developed through in-person, online, and institutional support).

My work and that of Attewell and Winston are not inconsistent with some of the more optimistic research discussed earlier in this chapter. Kadesha's frustrations with new technology (Attewell & Winston 2003) do not contradict Nanako's successes with it (Black 2008). Problematic approaches to use of new media in a college (Warschauer 1999) do not contradict more promising approaches to use of new media in community centers (e.g. Hull 1997). However, these investigations of typical practices at home or school settings shed light on a very different reality than those cited earlier of what may be less common practices.

A challenge, then, for digital literacy scholars is how to balance these two approaches; that is, to explore the shifts in what constitutes proper literacy without downplaying the dynamics of race, class, language, and gender that constrain these shifts. This balance may be easier to achieve if one starts by examining practices common in particular communities (rather than practices by exemplary members of communities), as seen, for example, in Heath's (1983) comparative study of literacy practices in two neighboring communities in the southeast United States. Replicating Heath's approach in online research would by necessity consider virtual rather than geographic communities; nevertheless, in this realm, comparative work is also possible and would be valuable. For example, a doctoral candidate in Information Management and Systems has begun to explore how U.S. class divisions mediate youth participation in Facebook vis-à-vis MySpace (Boyd 2007). Literacy Studies scholars would have much to add to this kind of comparative research that situates online literacy practices within broader societal dynamics of race, class, and language.

As a case in point, let us consider a research agenda for an important domain that has not yet been seriously investigated by Literacy Studies researchers: the blogosphere. By mid-2007, the search engine
Technorati was tracking some 85 million blogs around the world, making blogging one of the fastest growing formats for personal writing and publishing the world has ever seen (Warschauer & Grimes 2007). A change-oriented research agenda on blogging would focus on what is new and different about this form of communication (see discussion in Lankshear & Knobel 2006). One could imagine an ethnography of blogging that would investigate the diverse semiotic resources that bloggers deploy to get their message across (e.g. postings, comments, titles, signatures, links, images, video, typography), the types of interaction that occur on well-trafficked blogs and the ways that bloggers use feedback to sharpen their writing, and the types of identity transformation that people go through as they share their voices and explore new forms of themselves in online publishing. Such a study, or collection of studies, would have value.

A research agenda on blogging that more explicitly integrated issues of power though might look different. Racial, class, gender, and linguistic dynamics within the blogosphere could be actively explored by examining, for example, differences between social participation in one popular type of blog (e.g. personal journals) vs. another (e.g. advocacy blogs). Or a particularly influential advocacy blog could be examined to see what kinds of texts or participants it privileges and what kinds are held on the margins. Or different kinds of political blogs—for example, those representing leftist vs. rightist views—could be explored to see whether they feature different types of texts or practices. Or the ways that English-language learners struggle to make their voices heard could be analyzed, either within one part of the blogosphere or comparatively in different parts. I believe that such an approach, actively incorporating issues of power as well as change, would help develop a more sophisticated understanding of how diverse individuals and groups exploit the resources of blogging in today’s world.

**learning: digital literacies in the classroom**

A third framework for understanding technology’s relationship to literacy is that of learning. In other words, how does the use of new media help students acquire competencies in reading, writing, and digital literacies as well as mastery of academic content?

Many of the Literacy Studies researchers cited above place particular importance on learning. The original conceptual piece by the New London Group (1996) put forth a specific pedagogical model based on design and redesign of diverse resources for meaning, incorporating

Commendably, these researchers not only examine literacy practices but also advocate for improved literacy instruction in schools, and their suggestions along these lines are valuable. However, if this goal is to be achieved—or, more specifically, if Literacy Studies researchers are to maximize their contribution toward achieving this goal—it is important to overcome two shortcomings in digital literacies research. First, while much of this research critiques schooling, relatively little of it actually takes place within schools. This is perhaps understandable, as researchers generally have easier access to abundant digital literacy sources in out-of-school environments. It is unfortunate, though, as it renders the critique of schooling as less comprehensive and nuanced than it could otherwise be.

Exceptions to this include, among others, the work of Lankshear, Snyder, and Green in Australia (e.g. 2000) and some of my work in the United States (e.g. Warschauer 2000; Warschauer et al. 2004). These case studies of technology integration and use in diverse schools reveal a number of common issues across Australian and U.S. contexts, including a tendency to emphasize technology use for its own sake, differential instruction with technology in high- vs. low-SES schools, and difficulty in integrating technology due to inflexible curricula or inadequate support structures. In contrast, my latter study in ten U.S. schools with one-to-one laptop programs found more promising results, including a more seamless integration of technology in instruction, a greater emphasis on critical inquiry, and expanded opportunities for learner-centered project work incorporating diverse modalities (Warschauer 2006). These laptop schools may not represent the norm, as school laptop programs have generally taken hold in districts with reform-oriented administrators. But it is precisely that type of nuanced understanding (e.g. of where and under what circumstances reform is more likely to occur) that is often missing in Literacy Studies discussion of technology use in schools. Further research is needed in schools, and especially studies that consider students as the primary unit of analysis, to complement the above-cited studies that primarily analyze classrooms and teachers.
Second, the field of Literacy Studies has distanced itself from any attempts at measuring the outcomes of literacy instruction. Again, this is understandable, given the emphasis of our field on literacy as a social process that is understood through its texts and practices rather than as a unitary skill that is measured by examination. But whatever is not measured in schools is not taught (see, e.g., Hillocks 2002), and if we are displeased by the current forms of measurement, we should seize the opportunity to promote new ones. This is especially the case in today’s climate, when the combination of an excessively narrow approach to literacy instruction and assessment in the United States and elsewhere stands in such clear contradiction to the broad requirements of life and work in post-industrial society.

Many groups—some with more corporatist motives and some with more humanitarian ones—are thus pushing for a revised curriculum based on 21st century learning skills (see, e.g., Eisen 2003; Jenkins 2006; North Central Regional Educational Laboratory & the Metiri Group 2003; Partnership for 21st Century Skills 2004). There is broad consensus among these groups on what kind of new skills are needed, with most including worthwhile elements similar to those put forth by the International Society for Technology in Education: creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem-solving, and decision-making, and technology operations and concepts (NETS Project & Brooks-Young 2007). But no consensus exists on how progress toward mastery of skills in these areas can be measured. The logical approach is through some sort of portfolio or performance-based assessment (see, e.g., Darling-Hammond & Ancess 1994), but recognizing that still leaves immense challenges in designing and implementing systems that can reliably assess the products or performance of millions of learners in diverse contexts.

Work on alternative forms of assessment would represent a break with tradition for the field of Literacy Studies, which has long critiqued the dominant role of school-based forms of literacy and championed more marginalized forms (see, e.g., Baynham 1995). Developing new forms of school-based assessment could thus be seen as furthering the dominance of school-sanctioned literacies. In fact, though, it would allow Literacy Studies scholars to have a voice in redefining school-based literacy and to thus help ensure that currently marginalized literacy practices become less so in the future.

Finally, it is important to note how internationalized the intersection of technology, literacy, and educational reform is becoming. The
U.S. government and other donors are making investments in educational technology in developing countries, not always based on sound understanding of local educational needs (see, e.g., Warschauer 2004). Even when such technology-based reform efforts are only inspired rather than funded from abroad, they still run the risk of running up against local educational norms (see, e.g., Fang & Warschauer 2004). This is because the significance of any technology is highly bound to particular geographic locations (Prinsloo 2005). Efforts to export educational technology to the developing world are bound to expand in the future, especially with the aggressively marketed One Laptop Per Child (2007) program that seeks to provide sub-$200 computers to countries in Africa, Latin America, and Asia. If and when hundreds of thousands of low-cost laptops enter schools in developing countries—where, as noted by Prinsloo (2005), relatively few youth enjoy rich experiences with technology outside of school—a host of new research questions related to digital literacy practices and outcomes will be thrust on the agenda.

**Conclusion**

There is a long history of faith in technology as a silver bullet. Indeed, the belief that literacy (itself a technology) can automatically solve problems divorced from social context is the essence of the autonomous model of literacy that our field critiques. When put into practice, such views often contribute to a ‘Sesame Street effect’ (Attewell & Battle 1999), as initiatives targeted to help low-SES youth end up instead benefiting high-SES youth, due to the latter’s greater amount of financial, social, and cultural capital that enables them to exploit such initiatives for their own development.

To counter such beliefs and practices, we need an ideological model of digital literacy. And we have taken important steps toward constructing that model. The historical traditions of Literacy Studies, which include an attention to diverse semiotic resources, a focus on social interaction, and a commitment to exploring non-dominant discourses, have led to groundbreaking research on the invisible forms of literacy that occur in digital domains. But research methodologies that focus on the practices of high-performing individuals may tend to overemphasize the transformative potential of new media. Increased research based on typical practice in diverse communities is required to achieve a critical balance.
Moving from theory to praxis, the confluence of economic, social, and technological changes means that educational systems in the United States and many other countries are ripe for reform, and a key element of that reform is figuring out how to better evaluate literacy practices and outcomes in technology-rich classrooms. Literacy Studies scholars have a valuable role to play here too, first by situating more of their digital literacies research inside of schools, and second by contributing their expertise to developing more authentic forms of assessment.

Vast domains of online literacy have only begun to be studied. The blogosphere, wikisphere, and huge social network sites are all fruitful terrain for future dissertations in Literacy Studies. And before those dissertations are completed, new forms of online communication will likely have appeared. The field of Literacy Studies has earned its place in the forefront of research on digital meaning-making. By firmly placing our research in the context of power and politics, both inside and outside the classroom, we can help ensure that the full potential of digital literacy is more broadly achieved.

references


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