

CHAPTER 24

INTERNET LITERACIES FOR ACTIVE CITIZENSHIP AND DEMOCRATIC LIFE

In Search of the Intersection

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The term “technology in schools” has often been viewed as an educational panacea in which students would be able to learn (almost) in spite of their teacher, and countless school reform measures have been suggested (or mandated) that advocate “state of the art” technology (see Friedman & Hicks, 2006). State of the art technology has evolved from radio and motion pictures to television, microcomputers, educational software, static web pages, and currently, Web 2.0 technologies that foster interaction and communication. For each new development, there has been a parallel prediction that its use would revolutionize teaching and learning in social studies education (see Christensen, Johnson, & Horn, 2008; Gardner, 2009). However, the promises and potential of technology have not materialized (Cuban, 2001; Martorella, 1998).

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Currently, “state of the art” digital technology takes the form of the Internet, specifically Web 2.0—that is, participatory, “read-and-write” interactive technologies like MySpace, Facebook, YouTube, Flickr, Wikipedia, Blogger, Twitter, and beyond (Bull, et al., 2008; Dede, 2008; Greenhow, Robelia, & Hughes, 2009; McManus, 2005; O’Reilly, 2007). Researchers and educators are pointing to the tremendous potential of Web 2.0 to transform teaching and learning and to foster the understanding and skills, in particular literacy skills, necessary for active, engaged citizenship (e.g., Greenhow, et al., 2009; Leu, O’Byrne, Zawilinski, McVerry, & Everett-Cacopardo, 2009). At the same time, however, critical questions are being asked regarding the impact digital technologies have on the nature and quality of learning. For example, Carr (2010) suggests that our reliance on the Internet as an immediate source of easily accessible information will “make us shallower thinkers” (p. 194). He contends that the ease and speed of access to information through search engines such as Google “diminishes... the ability to know, in depth, a subject for ourselves, to construct within our own minds the rich and idiosyncratic set of connections that give rise to a singular intelligence” (Carr, 2010, p. 143). Importantly his work pays attention to and has initiated debate on the evolving effects of digital technologies on learning itself. Clearly there is an ongoing need to gain both a fuller understanding of children’s uses of digital technologies within their larger everyday informal and formal educational activities, and the extent to which their use of digital technologies, like the Internet, have any connection to learning and civic participation (See Livingstone, 2010).

In his 2001 book *Oversold and Underused: Computers in the Classroom*, Larry Cuban asserted that minimal evidence existed to show that teachers and students were using technology specifically to “create better communities and build strong citizens” (p. 197). A decade later Cuban’s comments and concerns continue to resonate and raise important questions for those interested in citizenship education in the 21st century. That is, with the rapid proliferation of so many creative, engaging digital technological innovations, is the relationship between digital technologies and democratic citizenship education any less opaque? Do these new Web 2.0 technologies require different ways of thinking and talking about 21st century citizenship education? And to what extent is it possible to connect ideas of 21st century digital literacy to understandings of educating for *active* democratic citizenship? In this paper, we use these questions as initiating points through which to map the complex relationship between Web 2.0 technologies, literacy in the digital age, and learning for active citizenship. Heeding Shulman’s (2007) observation that “the work of both scholarship and practice progresses as a consequence of dialogue, debate, and exchange” (p. 1), we seek to initiate a generative dialogue, informed by transdisciplinary scholarship, about current understandings and descriptions of 21st century digital

literacy, and the extent to which such technology ascribed literacy practices can be used to promote “active” citizenship.

WEB 2.0 AND LITERACY

Internet technology has changed rapidly over the past decade, both in terms of Web access and the nature of the Web (Greenhow, et al., 2009). Benkler (2006) contends that digital technologies themselves have afforded at least two distinct new ways to communicate beyond traditional patterns of media communication:

The first element is the shift from a hub-and-spoke architecture with unidirectional links to the end points in the mass media, to distributed architecture with multidirectional connections among all nodes in the networked information environment. The second is the practical elimination of communication costs as a barrier to speaking across associated boundaries. (p. 212)

Such changes prompted a new term, Web 2.0, coined to describe a “shift from the presentation of material by website providers to the active co-construction of resources by communities of contributors” (Dede, 2008, p. 80). Web 2.0 technologies are considered “both a platform on which innovative technologies have been built and a space where users are as important as the content they upload and share with others” (Greenhow, et al., 2009, p. 247). Such platforms include social networks, social bookmarking, collaborative knowledge development, creative works, content aggregation and organization, feeds and tagging tools, and more. Jenkins (2006) characterizes Web 2.0 as a “participatory culture” created by social interconnections, creative capabilities, and interactivity, a culture in which individuals believe their contributions and creations matter (p. 3). The lines between being a producer of material on the Internet and a consumer of that material have blurred (Richardson, 2006). Ownership of content has shifted from a small group of “experts” to growing collaborative online communities, what Dede (2008) terms a “seismic shift in epistemology” that calls for new ways of thinking about “knowledge,” “teaching” and “learning” (p. 80).

Like Dede (2008), Livingstone (2008a), observes that the Internet and associated Web 2.0 technologies are beginning to push policymakers, educators, parents, and researchers to think about knowledge (and knowledge production) differently and, also, to consider what young people need to know when using the Internet. Bennett, Maton, & Kervin (2008) suggest that such a “push,” however, should not be the result of succumbing to what they describe as an “academic form of moral panic” (p. 782) in terms of the type of public discourse that is clamoring for educational change to meet the needs of today’s students. Livingstone (2010), stresses the necessity of go-

ing beyond overgeneralizations and oversimplifications to a more thoughtful and careful considerations regarding young people's interactions and experiences with digital technologies. She notes, "If we overestimate young people's skills, we may underestimate their need for support.... Further, if we overestimate youthful skill, we may misunderstand their practices" (p. 4). In light of this, she argues that it is helpful to think about this "knowledge" in terms of literacy—that "through the concept of literacy" we can "weave together an account of basic and advanced skills, linking individual skills with social practices and crossing the boundary between formal and informal learning" (p. 102). Literacy, conceived broadly, involves the ability to think, to process information, to construct new ideas, and to organize one's thoughts. Barton and Hamilton (1998) defined literacy as "something people do," an:

activity, located in the space between thought and text. Literacy does not reside in people's heads as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analysed. Like all human activity, literacy is essentially social, and it is located in the interaction between people. (p. 7)

They assert that literacy is historically situated and purposeful, is best understood as a set of social practices, and is patterned by social institutions and power relationships (Barton & Hamilton, 1998). Barton and Hamilton (1998) conceptualized their notion of literacy as social and cultural practice while thinking about traditional forms of interaction with text—that is, reading and writing. The rise of new technologies has led to discussions of new literacies, including information literacy, media literacy, and Internet literacy (see, Buckingham 2003, 2008; Laverty, 2009; Livingstone 2008a,b; NCSS, 2009).

The definition of information literacy has evolved as the nature, form, and purpose of computing, telecommunications, and information technologies has changed over time (Laverty, 2009; Livingstone, 2008a). Information literacy emphasizes the acquisition of a set of skills—the ability to collect, access, retrieve, analyze, manage, communicate, create, convey, share, deconstruct, and donate information—as well as well developing habits of mind and engaging in ethical behavior (Laverty, 2009). According to Buckingham (2003) media literacy refers to the "knowledge skills, and competencies that are required in order to use and interpret media" (p. 36). But, he warns, media literacy (or literacy of any kind) is far from straightforward. Rather, media literacy requires critical literacy; it involves learning how to understand who created media, for what purposes, with what message, and for what audiences, as well as analyzing how these media represent the world, the symbolic meanings, text, and subtext of media (Buckingham, 2008). Buckingham (2003) notes that media cannot be separated from the "social and institutional structures in which it is situated" (p.

38) and involves a broader understanding of the social, political, economic, institutional, and intellectual influences of media within a certain time and space. Digital media have been seen as part of the broader field of media literacy (Buckingham, 2008).

The NCSS (2009) position statement on media literacy clearly reflects such an understanding:

Media literacy includes the skill of accessing, analyzing, evaluating, creating and distributing messages as well as the cultural competencies and social skills associated with a growing participatory culture . . . Media literacy also includes analysis of ideology and power as students learn how media are used to position audience and frame public opinion.

Whereas the NCSS position statement uses the term media literacy as an umbrella concept (as does Buckingham above), the emergence of online environments—the world of Web 2.0—may well require a further iteration of how we think and talk about literacy; specifically in terms of shifting beyond notions of information literacy and media literacy (Leu, 2000; Livingstone, 2008a). Leu et al. (2009) argue that the Internet should be viewed “as a literacy issue, not a technology issue” (p. 265) and draw on N/new literacies theory. New literacies (uppercase N) is a “broader, more inclusive concept” that benefits from new research that explores “either a specific area of new literacies (lowercase n), such as the social communicative transactions occurring with text messaging...or a focused disciplinary base, such as the semiotics of multimodality in online media” (Leu, et al., 2009, p. 265). New literacies share certain elements: They are multi-faceted, subject to almost continuous change, central to full participation in a global community, and attentive to the new skills, strategies, dispositions, and social practices required by new technologies for information and communication (Leu, et al., 2009).

Livingstone (2008a), does not directly refer to N/new literacies, but rather calls for a specific and “ambitious” definition of *Internet* literacy, one that satisfies the “social, economic, cultural, and political ambitions that society has for the information society and, especially, for the so-called ‘Internet generation’” (p. 102). She recognizes that traditional literacy, media literacy, and information literacy are relevant to thinking about Internet literacy, but that the unique, complex and ever-changing nature of the medium requires revisiting and recalibrating our understandings of literacy. Livingstone (2008a) defines Internet literacy as a “situated form of knowing” and as the “ability to access, understand, critique, and create information and communication content online” (p. 110). Specific skills, Livingstone (2008a) argues, include “information searching, navigation, sorting, assessing relevance, judging reliability, and identifying bias” (pp. 108–109). Internet literacy, like other forms of literacy, is not neutral, but always con-

sidered within the context of the economic, cultural, social, and political resources (or capital) that are unequally distributed. Livingstone (2008a) warns that theories of Internet literacy need to avoid technological determinism—that is, the risk of attributing an all-powerful role to technology (see, Buckingham, 2008)—and recognize the dynamic interaction between user and technology.

Livingstone (2008a) moves beyond definitions and identifies three purposes for Internet (and media and information) literacy: lifelong learning, cultural expression, and personal fulfillment; knowledge economy, competitiveness and choice; and, democracy, participation, and active citizenship (pp. 113–114). She argues:

In a democratic society, a media and information-literate individual is more able to gain an informed opinion on matters of the day, and to be able to express their opinion individually and collectively in public, civic, and politi-

TABLE 24.1. Democratic Affordances of Internet Technologies

Affordances of Internet Technologies

1. The Internet offers the potential for overcoming political and geographic borders as well as the government's ability to fully regulate, censor and monitor their citizens' activities in terms of locating, gathering and sharing information.
 1. The Internet creates opportunities for citizens to locate, receive, and disseminate information and ideas over time and space.
 2. The Internet allows/empowers citizens to access, research, disseminate/share, and broker information as well as seek out and form allegiances to support a common cause and advance political, social, and economic agendas regardless of location.
The Internet removes some of the stumbling blocks to the grassroots mobilization of interest groups and minority voices. Though Gladwell (2010) suggested that it can really only create weak network ties and not deep strong network ties required for sustaining the type of civil rights activism of the 1960s.
 3. The pace of change, and development of the Internet make it difficult for governments to exert total control over the nature and flow of information.
 4. The Internet offers an accessible space for citizens to expect governmental agencies and businesses to share information regarding their activities and procedures. The expectation is for governments to use technology for transparency to support the common good in a more open forum.
 5. The Internet shifts the nature of knowledge production from the traditional, authoritative, disciplinary divisions of knowledge that are passed down from governmental, corporate, and research institutions to a new paradigm of knowledge production that is socially distributed, application-oriented, transdisciplinary, and subject to multiple accountabilities.
 6. The Internet enables a widening of the knowledge society by serving as an educational portal for people to learn and study across time and space.
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(Adapted from Simon, Corrales, & Wolfensberger 2002). Democratic Characteristics/

cal domains, while a media and information-literate society supports a critical and inclusive public sphere. (p. 113–114)

Livingstone's (2008a) assertion that key purposes of Internet literacy are democratic participation and active citizenship reflects Greenhow, Robelia, and Hughes' (2009) contention that "new and emerging information and communication technologies, shaping and shaped by social practices, have tremendous potential to help improve individual and collective access to information, knowledge, and participation in evolving a just and democratic culture" (p. 281). However, as Simon, Corrales and Wolfensberger (2002) remind us, the Internet is neither naturally democratic nor naturally anti-democratic. An important point that was recently reiterated by Secretary of State Hilary Clinton, who, in her January 21st, 2010 remarks on Internet freedom, noted: "We stand for a single internet where all of humanity has equal access to knowledge and ideas. And we recognize that the world's information infrastructure will become what we and others make it." Indeed, the Internet does have the potential to offer democratic affordances (see Table 24.1). However it must also be remembered that the Internet in and of itself will not "naturally" increase citizens' desire for appropriate and positive speech, and the careful and appropriate sharing and discussion of political viewpoints.

The democratic characteristics and affordances of the Internet that are so often touted and revered remain fragile and precariously balanced as individuals, groups, and institutions search for ways to use the Internet to advance their own ideas and agendas at the expense of others (see Table 24.2).

What becomes clear, as Faris and Etling (2008) point out, is that "the Internet and other digital tools are merely that—tools. They are available for all, including those who seek to expand and represent democracy, those who seek to manipulate public institutions and government for their own gain, and those who seek to seize and consolidate power. This prompts the question of who can best utilize these tools" (p. 80). Given recent works that raise concerns regarding: the *shallowness* of the internet (Carr, 2010); young peoples' every day practices interacting with digital technologies (Bennett, Maton & Kervin, 2008); the nature and quality of some young people's access to digital technologies (Bennett, Maton & Kervin, 2008; DeWitt, 2007; Leu, O'Byrne, Zawilinski, McVerry & Everett-Cacopardo, 2009); the overwhelming Babel-inducing level of information available via search engines (see Faris & Etling, 2008); and, the limited potential of digital Web 2.0 technologies to foster the type of strong, deep sustainable networks to support and foster activism for social justice (Gladwell, 2010), we suggest that education as a whole, and citizenship education in particular, is of great importance in facilitating the literacy skills needed to prepare future citizens to be ready, willing, and able to participate within the ongoing struggle

TABLE 24.2. Anti Democratic Characteristics of Internet Technologies**Anti Democratic Characteristics of Internet Technologies**

2. Governments can ban, censor, or impose strict regulations on Internet providers within their own countries. It is technologically possible for governmental regimes to block their citizens from using the Internet to see certain things that are deemed offensive, corrupt, or inflammatory. Such censorship is made more difficult with the spread of cell phones that can be used to access the web and send text messages and videos. However, in January 2011 the Egyptian Government cut Internet and cell phone connectivity as part of effort to quell protests against the regime of Hosni Mubarak.
1. Issues of security, privacy and monitoring of information and ideas, even in democratic countries, have emerged in the post 9-11 era.
2. Power elites can influence the outcome of Internet searches to manage and control news and information through the use of search suppression or optimization techniques.
3. The Internet can be used a powerful portal for hate speech, incitements to violence, invasions of privacy, and cyber bullying.
4. Using the Internet as a portal for democratic education does not necessarily transform what has been taught if PowerPoint slides simply replace overhead transparencies, e-books and iPads replace textbooks, and course management sites made up of folders of documents replace three-ring binders.

(Adapted from Simon, Corrales, & Wolfensberger 2002).

for, and over, information that is shared, stored and disseminated on the Internet. Such a stance itself raises a number of important questions with regard to preparing citizens for active participation in 21st century societies. To what extent can the Internet be seen as a participatory democratic space that encourages citizenship engagement, participation, and knowledge production? How can citizens be supported and encouraged to access and make critical uses of civic-oriented information? How can new technologies support more meaningful and inclusive civic discourse? How can citizens make active and creative uses of participatory media to strengthen democratic structures and protect civil liberties? And, most importantly, what does *active citizenship* look like in the age of Web 2.0?

ACTIVE CITIZENSHIP

The literature on democratic citizenship addresses the complexity of *defining* the concept of democracy and “active” citizenship, both in theory and in practice. Democracy, to Dewey (1916, 1927), largely meant a form of *active community life*—a way of being and living with others. Moreover, he emphasized that democracy entails certain habits of the mind that must be cul-

tivated throughout citizens' lives as they participate in various institutions and groups in which they have a voice in setting goals, sharing knowledge, communicating, and taking direct action. Most importantly, Dewey envisioned democracy as a creative and constructive process for which citizens needed practical judgment, a shared fund of civic knowledge, and deliberative skills and dispositions.

Yet Dahrendorf (1997) also emphasized that citizenship is "not just an attitude of mind or even a subject of political education":

Citizenship is above all a set of entitlements common to all members of society... I like to think of citizenship as a set of chances—life chances—that define a free society. [This] involves basic rights, equality before the law, due process, the integrity of the person, freedom of expression and association. It also involves chances of participation, universal suffrage, of course, but equally importantly market access including labour market access, and social movement in the numerous opportunities of civil society. This is what citizenship means in the full sense of the word... (Citizenship) provides an instrument for living with difference with regard to how people act with and toward other citizens, societies and cultures within a global community. (pp. 62–63)

Jones and Gaventa (2002) specifically conceptualize *active* citizenship as "the direct ways in which citizens influence and exercise control in governance" and "the direct intervention of citizens in public activities," as well as the "accountability of the state and other responsible institutions to citizens" (p. 7). This "relational dynamic" of citizenship places "obligations on both citizens and the state through participatory democratic systems ... (that) require direct connection between citizens and the state" (p. 7). This, in turn, "entails institutional reforms that enable democratic participation through the production of new forms of relationship between civil society and the state" (p. 7). They conclude, "When citizens perceive themselves as actors in governance, rather than passive beneficiaries of services and policy, they may be more able to assert their citizenship through actively seeking greater accountability...and shaping policies that affect their lives" (p. 7).

Another way of thinking about active citizenship is what Parker (2008) has called "enlightened political engagement" or "wise political action" (p. 68). Parker explained:

Political engagement refers to the action or participation dimension of democratic citizenship, from voting to campaigning, boycotting, and protesting. Democratic enlightenment refers to the knowledge and commitments that inform this engagement: for example, knowledge of the ideals of democratic living, the ability to discern just from unjust laws and action...and the ability and commitment to deliberate public policy in cooperation with disagree-

able others. Without democratic enlightenment, participation cannot be trusted... (and) can be worse than apathy. (p. 68)

Parker reminds us that enlightened political engagement is not easy to accomplish; it is a continuous goal toward which we work with others who hold different ideas and perspectives than ourselves.

The literature also includes useful national and cross-national studies that demonstrate the variety of ways in which active citizenship can be conceptualized (e.g., Davies, 2006; Davies & Issitt, 2005; Ibrahim, 2005; Jones & Gaventa, 2002; Torney-Purta & Richardson, 2004; Torney-Purta, Lehmann, Oswald, & Schulz, 2001; Watts, 2006). Cogan and Derricott's (1998) idea of *multidimensional citizenship* is informative; it includes eight key characteristics with implications for being "active" as a *global* citizen: (1) the ability to look at and approach problems as a member of a global community; (2) the ability to work with others in a cooperative way and to take responsibility for one's role/duties in society; (3) the ability to understand, accept, appreciate and tolerate cultural differences; (4) the capacity to think in a critical and systematic way; (5) the willingness to resolve conflict in a non-violent manner; (6) the willingness to change one's lifestyle and consumption habits to protect the environment; (7) the ability to be sensitive toward and to defend human rights; and (8) the willingness and ability to participate in politics at local, national and international levels. They conclude:

... (The task is) to help [future] citizens recognize the global challenges which affect each of us personally and are part of our individual and social responsibility to address. Put simply, global challenges cannot be left for someone else to deal with: rather, the responsibility lies with each of us to safeguard global well-being... Twenty-first century citizenship will require active citizenship participation—citizens who view themselves as actors in the world. (p. 133)

Developing informed and active citizens has long been articulated as an essential goal of education. Dewey (1916, 1927) helped to break this ground by arguing that the school should be a democracy in microcosm, where pupils learn particular processes, values, and attitudes to live effectively as citizens. Parker (2008) stated that schools are both "curricular and civic spaces...where people who come from numerous private worlds and social positions are congregated on common ground with shared interests" (p. 69). The school curriculum, he explained, can "afford opportunities for students to learn enlightened political engagement by exploiting school attendance—that is, by developing the public potential of schools to educated citizens" (2008, p. 70). Parker's conception of democratic citizenship education values direct involvement in public life, pluralism, and democracy as a way of life involving "deliberation, action, and reflection" (1996b, p. 121). He has argued for a discourse in school of "responsibility, negotiation, and

obligation” aimed at creating a “broad political comradeship”—creating the political “one” out of the cultural “many” (1996b, p. 117). According to Parker, schools already possess the “bedrocks of democratic living—diversity and mutuality” (1996a, pp. 2, 10). The cultivation of their democratic potential entails increasing the opportunities for interaction among diverse students, and structuring this interaction so that “competent dialogue” is supported—i.e., dialogue that is purposeful, open, and inclusive (2008, p. 70). When schools offer such affordances, they are living up to what Parker (1996a) terms their “first moral obligation” to give children an education that will equip them to take advantage of their citizenship (p. 2).

INTERNET LITERACY AND ACTIVE CITIZENSHIP

How, then, can technology—and, more specifically, Internet literacy—be used to foster and promote this vision of active citizenship? Many argue that technology integration can assist in the “essential mission” of the social studies—preparing students for the responsibility of the office of citizen (e.g., VanFossen & Berson, 2008). This task, however, may be easier said than done, considering that both researchers and politicians recognize that digital technologies and the Internet are for many young people primarily a place to/for play—“a way to escape from offline constraint” (see Livingstone, 2010). Or, as President Obama suggested technology can serve as “a distraction, a diversion, a form of entertainment, rather than a tool of empowerment, rather than the means of emancipation” (Wiltmeyer, 2010). Within social studies education itself, research indicates that computer technology has not been seamlessly integrated into the classroom, nor has it transformed the teaching and learning process (Becker, 1999; Cuban, 2001; Ehman & Glenn, 1991). Internet use in social studies, according to a 2000 U.S. Department of Education study, is generally superficial in nature (VanFossen & Berson, 2008), despite the fact that nearly 100 % of schools are currently connected to the Internet (Greenhow, Robelia, & Hughes, 2009). And, as Doolittle & Hicks (2003) observe, the social studies community has, for the most part, “side-stepped, or merely played lip service” to the need for a clear philosophical, theoretical, and pedagogical framework to think about technology and social studies education (p. 96). Yet if the mission of the social studies is to educate global citizens for the networked 21st century, we need to carefully consider what it means to teach students (and teachers) to learn how to critically engage in the type of systematic and sophisticated multimodal literacy work that Web 2.0 technologies require. Furthermore, it is essential to consider how Internet literacy can foster the understanding, knowledge, and skills for active citizenship—that is,

when the contours of human interaction change—as is the case with Web 2.0 technologies—the ways of understanding civic life must change as well.

With the rapid expansion of networks for storing and moving information, citizens today have fewer limitations on how they can access information and how much information than can access. One recent estimate suggested that digital information is being created and stored at such a rapid rate that the amount of data stored is doubling every eleven hours (IBM, 2007). The consequences for democratic life are enormous. Citizens today have immediate access to billions of pages of information that may inform their civic attitudes. Beyond simple access, citizens need to engage that information and compose ideas that inform and guide their civic life. Citizens today need ways of understanding how to cope with the staggering amount of information, and more useful techniques for engaging this information in a critical and productive manner.

Expanded access to civic information has numerous implications for democratic life. Some concerns relate to the commercial control and monitoring of information online (Rosenzweig, 2001; Samoriski, 2000). Other issues involve the manner in which information access can influence political activity (Jiang & Xu, 2009; Lee, 2009; Tettey, 2001) and how democratic structures are affected by technological infrastructure (Groshek, 2009). More closely connected to education, others are focused upon the extent to which online information access affects civic dispositions and attitudes (Biddix, Somers, & Polman, 2009). Perhaps most important are issues related to how young people come to know and understand what it means to engage in civic democratic life in online environments.

In their 2008 survey of 2,251 adults, Smith, Schlozman, Veba, and Brady (2009) found that young citizens in the United States are increasingly making use of Internet resources to engage in political activities. Half of the respondents indicated that they engage in some form of online civic communication or action, including petitioning, editorializing, contacting government representatives, and networking with others. Most of this activity was concentrated among respondent ages 18–34. Seventy two percent of all political uses of social networking sites were among this youngest group, as was 55% of all political commentary posted on the Web. This, along with other research, indicates that youth are engaged in civic life, and that Internet and Web 2.0 technologies may offer new ways to learn about political life, to create civic communities across multiple boundaries (geographic, cultural, social, political), and to experience the complexity and challenge involved in civic life (Bers, 2008). Thus, the potential exists to engage in active citizenship, but only if citizens possess, on the one hand, Internet literacy skills and, on the other hand, civic knowledge. The two are inextricably linked; the nature of Web 2.0 technology requires unique ways of thinking, knowing, and doing.

Internet literacy, as well as a host of other terms for representing the literacies that emerge from uses of new technologies, suggest that two activities shape our ways of knowing, communicating, and processing information. Most certainly, methods of communicating have been transformed in a number of important ways with the introduction of new technologies such as Voice Over Internet (VOIP) protocol (e.g., Skype) and microblogging (e.g., Twitter). These new technologies and associated mediums make communication over distance easier and more dynamic, shaping ideas and enabling messages that are equally dynamic. At the same time, the mass of information created through new publishing and collaborative networks have dramatically increased demands on cognitive processing (Brand-Gruwel, Wopereis, & Vermetten, 2005; Duke, Schmar-Dobler, & Zhang, 2006; Walraven, Brand-Gruwel, & Boshuizen, 2009; c.f. Carr, 2010). The notion of Internet literacies is a helpful construct for managing and facilitating these emerging and, as Leu (2000) refers to them, deictic ways of knowing. Citizens must be conversant with new mediums and forms for communication, as well as with the mass of information and the opportunities to construct information.

But citizenship is much more. At the center of the idea of citizenship are beliefs and actions that improve the common good (Barton & Levstik, 2004). The question that needs to be answered is: How are new technologies and the myriad of literacies that have emerged alongside these technologies aimed at supporting or improving the common good? For us, the answer to this question lies not in how we use technology or even how we know or think about the activities supported by technologies. Instead, literacy for citizenship in the 21st century should be about being democratic and understanding the new literacies of democratic life writ large. The literacies of democratic life are both reflective of our current condition and pointed toward a better and more just social arrangement. Because new technologies play such a vital role in two lynchpin democratic activities, communication and the creation and uses of information, democratic citizens must have a clear understanding of how new technologies impact democratic life. Put another way, we need to expand our views of how to be democratic in contemporary life.

What does this look like in practical terms? Take a blog (i.e., weblog), which is a type of website that consists of journal-style entries that can provide commentary, descriptions of events, photographs, graphics, and video. These entries, created by an individual or group, are presented in reverse chronological order, and readers can comment on entries (Raynes-Goldie & Walker, 2008). Blogs can be used to disseminate information and/or for small groups to launch discussion around specific topics—both components of active citizenship. But in order to make sense of a blog and to use a blog for purposes of civic engagement, the user must possess Internet

literacy skills. A user must be able to search the Internet to find a blog or possess the skills to create a blog; the user also needs to be able to critically analyze the content of the blog and to assess particular positions taken by the author of a blog. Moreover, creators of a blog need to understand the best ways to publicize/tag a blog designed to garner attention for a particular civic purpose. Blogs have quickly emerged as an alternative source for news information and as platforms for interest groups to organize and disseminate information. In American politics, multiuser blogs such as the progressive Daily Kos and the conservative Michelle Malkin provide political writers-activists with a public outlet that was, not too long ago, the exclusive purview of professional journalists and commentators (Schiffer, 2007).

Similarly, social networking tools can be used for active civic engagement but also require Internet literacy skills. Facebook and MySpace are two popular global social networking tools, operated and owned by private companies. On Facebook, for example, users can create personal profiles, add friends, send messages to friends, and join networks. Users can also mobilize their networks by posting links or information about issues, current events, and ways to get involved (Raynes-Goldie & Walker, 2007). In order to use Facebook effectively, however, users need to know how to access, create, and manage their profile. Additionally, they need to understand issues related to private and public knowledge access, be able to critically analyze information shared/published by friends, and understand ways of mobilizing their networks of friends through their profiles. As a space for enabling political activity, Facebook and MySpace have enjoyed some success (Donnelly-Smith, 2008). Preliminary studies show the potential of new technologies like social networks and blogs to engage young people in online civic life, and there is fertile ground for more research on how technology-based interventions can promote participation in a virtual and face-to-face world (Bers, 2008).

Anecdotal evidence of Web 2.0s potential for active citizenship is growing. The Navajo Nation in the southwestern United States provides a striking illustration of how the use of Web 2.0 and social networking technology can reflect Internet literacy and active citizenship. In 2008, a Navajo citizens' initiative called for a referendum on whether to reduce the number of members of the Navajo Nation Council (the legislative branch of the Navajo government) from 88 to 24. The rationale stemmed from a 2001 report that evaluated the efficiency of the legislature. The study found that Navajo Nation delegates represented an average of only 2,100 constituents—or about 26 times fewer constituents than those represented by Arizona legislators, but at 30 percent more cost per legislative item; in 2008, each Navajo Nation Council delegate represented an average of 3,409 constituents. According to proponents of the referendum, reducing the council to 24 delegates would reduce waste and inefficiency in the legislature but would

still equate to 13 times the representation per constituent than the Arizona Legislature, and per capita the council would remain one of the highest levels of representation of any legislature in the country. In addition to the creation of an “88 to 24” website, proponents utilized Twitter, a MySpace blog, MySpace video, and Facebook to publicize their views on the issue, to explain how Navajos both on and off the reservation could register to vote, to obtain the required number of signatures for a petition to put the initiative to a vote, and to promote their “Get Out the Vote” efforts for the referendum, which took place in December 2009 and was the first time since 1934 that Navajos voted on the actual structure of their government. Voters approved the referendum by a large margin.

In Iran, another high profile and dramatic use of Web 2.0 technology unfolded after the Iranian presidential election of 2009. In the days and weeks after the election, makeshift human and technology networks on the ground in Iran were mobilized to distribute information within the country and to the outside world. Information coming out of Iran was almost completely unfiltered. Traditional news networks were confronted with the same issue that regular Internet information users face: How do we know whether information that is published online can be trusted? In this case, much of the information was disseminated using the microblogging website Twitter. Professional news organizations such as CNN made a critical decision to use the information from sites such as Twitter, in addition to their mainstream sources, for verification and corroboration (Palser, 2009). Gladwell (2010) quoting from an article in *Foreign Policy*, suggests that the use of Tweets—which were typically English language Tweets (not Farsi)—was more an example of a shallow journalism of convenience by reporters who could not reach or could not be bothered to reach anyone on the ground in Iran. However, what is important to note is that the media did pay attention to the Tweets in Iran, just as they also paid attention to bloggers and user-generated news sites in Kenya during the post election crisis in 2007–8 (Goldstein & Rotich, 2008), in Burma during the Saffron Revolution in 2007 (Chowdhury, 2008), in South Korea during the 2002 presidential elections (Joyce, 2007), in the Ukrainian Orange Revolution in 2004 (Goldstein, 2007), and most recently as a result of the Wikileaks release of the Afghanistan War Logs in the summer of 2010. This unfolding story of almost free-floating information illustrates in stark terms how citizens and mainstream information networks have to reconsider how they access and use information. In situations such as this, Internet literacies situated in dynamic social contexts are needed to use information meaningfully and critically. The need for critical uses of information, as exemplified in the case of Navajo nation in 2008, the 2009 presidential elections in Iran, and the other aforementioned flashpoints, is an area that could well be explored and fostered within and through K–16 settings if a key mission of education

is to prepare children to engage in active citizenship. Case studies could also be developed and discussed in the social studies classroom regarding events surrounding the use of digital technologies and privacy, cyberbullying, and local activism and advocacy at varying scales of engagement.

ACTIVE CITIZENSHIP, INTERNET LITERACY, AND PEDAGOGY

The core skills and competencies required for both Internet literacy and active citizenship are not natural, easy, or intuitive; rather, they are complex, fluid, multi-layered, and ever-changing, much like democracy itself. This way of thinking about literacy, knowledge, and citizenship necessitates rethinking and asking questions of traditional curricula, pedagogies, and assessment and who has access to the use of and discussions regarding the use of digital technologies (see Livingstone, 2010). Bennett (2008) argues that civics education in the United States is in decline, and “where offered, the curriculum is often stripped of independent opportunities for young people to embrace and communicate about politics on their own terms” (p. 7). The result is that there is often “little connection between the academic presentation of politics and the acquisition of skills that might help develop engaged citizens” (Bennet, 2008, p. 7). Also, research indicates that while many young people have access to Web 2.0 tools that could facilitate active citizenship, they lack the critical Internet literacy skills that allow them to use the tools for meaningful civic engagement (Levine, 2008; Livingstone, 2008b). Education for citizenship and education for Internet literacy are both necessary, in conjunction with new ways of teaching with, about and for digital media.

Jenkins (2006) argues that educators should encourage and teach students the skills, knowledge, ethical frameworks, and self-confidence to be full participants in participatory, contemporary culture. But he warns that attention must be given to the fundamental inequalities in young people’s access to Web 2.0 digital media—what he terms the “participation gap.” He also identifies a “transparency problem” (young people are not actively reflecting on their media experiences) and an “ethics challenge” (ethical norms are not yet developed to cope with a complex and diverse social environment online). And, most importantly, he argues that the rhetoric and discussion of 21st century skills has obscured a fundamental truth—that textual literacy remains an essential skill, and that “before students can engage with the new participatory culture, they must be able to read and write” (Jenkins, 2006, p. 19). He notes that young people are already participating in Web 2.0 through affiliations (formal and informal online communities), expressions (producing new creative forms), collaborative problem solving (working together to complete tasks and develop new

knowledge) and circulations (shaping the flow of media). Youth, however, fail to engage in critical dialogues to help them articulate how, why, and what skills they need for these experiences. Furthermore, educators are haphazard at best in incorporating Web 2.0 into teaching and learning and often fail to explicitly teach Internet literacy and engage students in critical dialogue. Jenkins (2006) calls for attention to a set of core social skills and cultural competencies that include play, experimentation, performance, simulation, appropriation, multitasking, distributed cognition, collective intelligence, judgment, networking, and negotiating (p. 56).

Kress (2003) suggests a shift from a “world told” where written communication was the predominant form of knowledge construction and exchange to a “world shown,” where images and the screen have emerged as the primary form of meaning-making. Gee (2000) argues for a new set of pedagogical principles to support the teaching of multiple literacies in the formal educational setting. These include providing students with: (1) the room to engage in situated practices, where they can engage in hands-on, authentic learning experiences that involve relevant and meaningful talk, tools, and technologies; (2) explicit, overt instruction that helps students reflect upon patterns and themes in the language and practice being taught; (3) an understanding of how to critically frame what they are learning in terms of other domains and disciplines; and (4) the ability to produce and not just consume knowledge. Similarly, Levine (2008) asserts that students should have multiple opportunities to create digital media in schools, and that they should learn the effective use of a public voice in addition to political activism, deliberation, problem solving and participation. However, as Livingstone (2010) warns, care needs to be taken in designing such activities. If students are either uncertain of the value, purpose, and audience of teacher designed activities, or if such activities do not necessarily build on their own interests, curiosities, rights and responsibilities, it is likely students will resist such efforts and regard such formalized uses of digital technologies as little more than inauthentic attempts to dress up traditional classroom practices. In essence, the activities designed for the classroom must pay attention to the types of literacy questions that need to be asked of digital technologies writ large: who controls the technology, and for what purpose?

In short, education for both active citizenship and Internet literacy emphasizes: (1) explicit instruction in active citizenship; (2) incorporation of Web 2.0 in day-to-day instruction; (3) attention to Internet literacy—that is, how to access, understand, critique, and create information as well as how to critically reflect on one’s use of technology; and (4) recognition and attention to questions of power and the democratic affordances and constraints of Internet technologies.

CONCLUSIONS AND QUESTIONS

Digital technologies are neither good nor bad; it is how we think of them and use them that make them so. There is a danger of teachers, educators, parents, and policy-makers succumbing to the idea that young people and adults are digital natives who as “producers” (Bruns, 2008) know how to safely and meaningfully navigate within and through current and emerging digital technologies (see Buckingham, 2003; Livingstone, 2008a, 2008b). Issues of access (in terms of quality of access), the ethics of use and production, and understandings of how to navigate within and through the Internet (in order to collect, produce, distill, evaluate, and disseminate information) are complex and not naturally bestowed upon people simply because they are products of a specific era. As we have argued, learning to use technologies is a literacy issue that requires a broader understanding of literacy than the encoding and decoding of symbols—the ability to read and write—though this in itself is vital. Seeing the use of technology as a literacy issue makes it an educational concern, and tying this educational concern to the broader goal of educating for active democratic citizenship must be taken seriously across the K–16 spectrum as well as within informal educational settings. The provenance of our conceptualization of Internet literacy can be found in ongoing movements to conceptualize an expanded contemporary definition of literacy in terms of the work done in the areas of N/new literacy, multimodal literacy, and multiple literacies (Jewitt, 2008). What is clear from such work is that literacies are local and situated, and, as Jewitt (2008) reminds us, “the ways in which something is represented shape both what is to be learned, that is, the curriculum content, and how it is to be learned” (p. 241).

The need to develop a broader re-conceptualization of literacy is not simply the result of emerging digital technologies, but rather a recognition of the “new conditions of contemporary society,” of which digital technologies are an important feature (Jewitt, 2008, p. 242). Thirty years ago, Daniel Bell (1976/1999) argued, “If capital and labor are the major structural features of industrial society, information and knowledge are those of the post-industrial society” (p. xci) Bell’s predictions have proven true. With the rise of the network society, “the source of productivity lies in the technology of knowledge generation, information processing and symbolic communication” (Castells, 1996, p. 16–17). The very nature of how we interact with information to describe and read the contemporary world has dramatically changed our understanding of what it means to be literate. Literacy has been theoretically transformed by work in the fields of New literacies, multiliteracies, media literacy, information literacy, and multimodal literacies (Jewitt, 2008). The result is an ongoing and “increasingly pluralized and

multiplied” understanding of the nature and definition of literacy (Jewitt, 2008, p. 244).

In terms of educating for Internet literacy and active citizenship, it becomes important to recognize that literacy in this context does not mean expending one’s energies simply teaching children to use the plethora of digital technologies with their various software and platforms. Such a task is impossible, given the ever-changing face of the Internet and digital technologies. Rather, we have to recognize the importance of the principle of transfer when it comes to learning how to navigate the range of digital technologies. The first layer of engaging in systematic and sophisticated literacy work is to encourage quality access by instilling confidence, willingness, and the ability to play and explore both the benefits and drawbacks of technology. This goes beyond just physical access—though this is important in and of itself—but access here also includes an understanding of what the Internet is, how it is designed, how it functions, how the digital spaces that make up the Internet can be navigated, and what types of information and traces we as users leave as we visit sites to search for and upload information.

Moreover, it becomes important for users to understand and deliberately reflect upon the fact that the ways we move through virtual spaces shape our emerging identities as “producers” (Bruns, 2008), and that while we may sit alone in front of a screen, we become nodes within and through a series of networks that connect us in multiple ways to diverse ideas, people, concepts, constructs, attitudes, and beliefs. We encounter ideas that are unfiltered, easily accessible and socially constructed; we find that ideas can be democratic and liberating as well as anti-democratic, small-minded, deceptive, or simply dangerous (c.f. Simon, Corrales, & Wolfensberger, 2002; Sunstein, 2009). Thus, another layer of Internet literacy is critical engagement with content and purposeful analysis of key issues of identity, power, aesthetics, ethics, and design and development that are embedded in the contexts of the Internet. Developing a reflective critical frame from which to engage and unpack information—while deliberately recognizing and being able to recreate and trace one’s path through the Internet in order to understand how, where, and why one accesses certain ideas—is vital if young people are going to become thoughtful deliberative citizens capable of not only receiving and digesting information but also of producing, creating, and re-creating meanings and ideas across contexts.

Internet literacy requires recognition of the possibilities that come with the new spaces of information gathering, research, information creation, publication, and dissemination. It requires an understanding of the responsibilities one has for oneself and for others as a “producer.” As Briggs (2005) contends:

Unless we transform ideological constructions of how knowledge is produced, circulated, and received, routes of circulation, and how people are

positioned, we will be unlikely to promote effective alternative formulations or effectively support efforts by oppressed and marginalized populations to insert their voices into public debates. (p. 283)

The ability to be autonomous and self-regulating literate citizens who are capable of asking questions, connecting with multiple publics, examining varying agendas and perspectives, locating sources, searching for evidentiary warrant, constructing thoughtful and pragmatic arguments, and responding to others' ideas in order to enliven dialogue, debate, and democracy requires that we teach students to learn to ask several key questions about the information we and they seek out and produce:

- Who benefits from this point of view, argument, and/or product?
- Who will not benefit from these views and arguments?
- Whose perspectives and ideas are included, and whose are omitted in this argument and/or product?
- Is what I have downloaded or uploaded supported by evidence?
- How do these views benefit the greater good and promote democratic ideals?
- How do they recognize and support dialogue that is open and inclusive?
- How do these points of view or products shape one's emerging identity and ongoing interactions with others as an active democratic citizen?
- How will these ideas shape others' responses, perspectives, and ideas?
- How will others' responses impact one's own understanding of oneself and others?

We suggested earlier in this article that our work here would be a discussion, an effort to think about and extend existing scholarship and practice. Through our analysis, we suggest that critical Internet literacies are needed to support meaningful and active citizenship experiences. Clearly, a great deal more scholarship is required not only to conceptualize the intersections of citizenship education, literacy, and digital technologies, but also to design and evaluate pedagogies and pedagogical tools that seek to facilitate the teaching and learning of 21st century literacy skills necessary for engaged and enlightened active citizenship. Such work is essential to not only support the myriad of activities that compose democratic life, but to move forward our understanding of contemporary civic life and ensure a more just and productive democratic society.

REFERENCES

- Barton, D., & Hamilton, M. (1998). *Local literacies: Reading and writing in one community*. London: Routledge.
- Barton, K., & Levstik, L. (2004). *Teaching history for the common good*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Becker, H. (1999). *Internet use by teacher*. Retrieved from <http://crito.uci.edu/papers/TLC/findings/internet-use/>
- Bell, D. (1976/1999). *The coming of post-industrial society: A venture in social forecasting*. NY: Basic Books.
- Benkler, Y. (2006). *Wealth of networks: How social production transforms markets and freedom*. New Haven: Yale.
- Bennett, S., Maton, K., & Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology*, 19(5), 775–786.
- Bennett, W. L. (2008). Changing citizenship in the digital age. In W. L. Bennett (Ed.), *Civic life online: Learning how digital media can engage youth* (pp. 1–24). The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press.
- Bers, M. U. (2008). Civic identities, online technologies: From designing civics curriculum to supporting civic experiences. In W. L. Bennett (Ed.), *Civic life online: Learning how digital media can engage youth* (pp. 139–160). The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press.
- Biddix, J., Somers, P., & Polman, J. (2009). Protest reconsidered: Identifying democratic and civic engagement learning outcomes. *Innovative Higher Education*, 34(3), 133–147.
- Brand-Gruwel, S., Wopereis I., & Vermetten Y. (2005). Information problem solving: Analysis of a complex cognitive skill, *Computers in Human Behavior*, 21, 487–5.
- Briggs, C. (2005). Communicability, racial discourse, and disease. *Annual Review of Anthropology*, 34, 269–291.
- Bruns, A. (2008). *Blogs, Wikipedia, second life, and beyond: From production to produsage*. NY: Peter Lang.
- Buckingham, D. (2003). *Media education: literacy, learning and contemporary culture*. Cambridge: Polity Press.
- Buckingham, D. (2008). Introducing identity. In D. Buckingham (Ed.), *Youth, identity, and digital media* (pp. 1–24). Cambridge, MA: The MIT Press.
- Bull, G., Thompson, A., Searson, M., Garofalo, J., Park, J., Younga, C., & Lee, J. (2008). Connecting informal and formal learning experiences in the age of participatory media. *Contemporary issues in technology and teacher education*, 8(2). Retrieved September 19, 2010 from <http://www.citejournal.org/vol8/iss2/editorial/article1.cfm>
- Castells, M. (1996). *The rise of the network society*. Oxford: Blackwell.
- Carr, N. (2010). *What the Internet is doing to our brains: The shallows*. NY: W.W. Norton.
- Christensen, C., Johnson, C. W., & Horn, M. B. (2008). *Disrupting class: How disruptive innovation will change the way the world learns*. New York: McGraw Hill.
- Chowdrey, M. (2008). The role of the Internet in Burma's Saffron Revolution. *Internet and democracy case study series*. Berkman Center research publication no

- 2008–08. Retrieved from http://cyber.law.harvard.edu/publications/2008/Role_of_the_Internet_in_Burmas_Saffron_Revolution
- Clinton, H. (Jan 21st, 2010) *Remarks on Internet freedom. Speech at the Newseum*, Washington DC. Retrieved: <http://www.state.gov/secretary/rm/2010/01/135519.htm>
- Cogan, J. J., & Derricott, R. (1998). *Citizenship for the 21st century: An international perspective on education*. London: Kogan Page.
- Cuban, L. (2001). *Oversold and underused: Computers in the classroom*. Cambridge, MA: Harvard University Press.
- Dahrendorf, R. (1997). *After 1989: Morals, revolution and civil society*. New York: St. Martin's Press.
- Davies, L. (2006). Global citizenship: Abstraction or framework for action? *Educational Review*, 58, 5–25.
- Davies, I., & Issitt, J. (2005). Reflections on citizenship education in Australia, England, and Canada. *Comparative Education*, 41, 389–410.
- Dede, C. (2008). A seismic shift in epistemology. *EDUCAUSE Review*, 80–81. Retrieved September 22, 2010, from <http://net.educause.edu/ir/library/pdf/ERM0837.pdf>
- DeWitt, S. W. (2007). Dividing the digital divide: Instructional use of computers in social studies. *Theory and Research in Social Education*, 35(2), 277–304.
- Dewey, J. (1916). *Democracy and education*. New York: Macmillan.
- Dewey, J. (1927). *The public and its problems*. Chicago: Swallow.
- Donnelly-Smith, L. (2008). Political engagement in the age of Facebook: Student voices. *Peer Review*, 10(2/3), 37–39.
- Doolittle, P., & Hicks, D. (2003). Constructivism as a theoretical foundation for the use of technology in Social Studies. *Theory and Research in Social Education*, 31(1), 72–104.
- Duke, N.K., Schmar-Dobler, E., & Zhang, S. (2006). Comprehension and technology. In M. McKenna, L. D. Labbo, R. D. Kieffer, & D. Reinking, (Eds.), *International handbook of literacy and technology Vol. II* (pp. 317–326). Mahwah, NJ: Lawrence Erlbaum.
- Ehman, L. H., & Glenn, A. D. (1991). Interactive technology in the social studies. In J. P. Shaver (Ed.), *Handbook of research on social studies teaching and learning* (pp. 513–522). NY: Macmillan.
- Faris, R., & Etling, B. (2008). Madison and the smart mob: The promise and limitations of the Internet for democracy. *The Fletcher Forum of World Affairs*, 32(2), 65–85.
- Friedman, A. M., & Hicks, D. (2006). The state of the field: Technology, social studies, and teacher education. *Contemporary Issues in Technology and Teacher Education*, 6(2), 246–258. Retrieved from <http://www.citejournal.org/articles/v6i2socialstudies1.pdf>
- Gardner, H. (2009). *Five minds for the future*. Cambridge, MA: Harvard Business School Press.
- Gee, J. (2000). New people in new worlds: Networks, capitalism and school. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 43–68). London: Routledge.

- Gladwell, M. (2010). Small change: Why the revolution will not be tweeted. *The New Yorker*. Retrieved http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell
- Goldstein J. (2007). The role of digital networked technologies in the Ukrainian Orange Revolution. *Internet and democracy case study series*. Berkman Center research publication no 2007-14. Retrieved from http://cyber.law.harvard.edu/publications/2007/The_Role_of_Digital_Networked_Technologies_in_the_Ukrainian_Orange_Revolution
- Goldstein, J., & Rotich, J. (2008). Digitally networked technology in Kenya's 2007–2008 post election crisis. *Internet and democracy case study series*. Berkman Center research publication no 2008–09. Retrieved from http://cyber.law.harvard.edu/publications/2008/Digitally_Networked_Technology_Kenyas_Post-Election_Crisis
- Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Web 2.0 and classroom research: What path should we take now? *Educational Researcher*, 38(4), 246–259.
- Groshek, J. (2009). The democratic effects of the Internet, 1994–2003: A cross-national inquiry of 152 countries. *International Communication Gazette*, 71(3), 115–136.
- Ibrahim, T. (2005). Global citizenship education: Mainstreaming the curriculum. *Cambridge Journal of Education*, 35, 177–194.
- IBM Global Technology Services. (2007). *The toxic terabyte: How data-dumping threatens business efficiency*. Retrieved from, http://www-935.ibm.com/services/us/cio/leverage/levinfo_wp_gts_thetoxic.pdf
- Jenkins, H. (2006). *Confronting the challenges of participatory culture: Media education for the 21st century*. White paper for the MacArthur Foundation. Retrieved September 24, 2009, from <http://digitallearning.macfound.org>
- Jewitt, C. (2008). Multimodality and literacy in school classrooms. *Review of Research in Education*, 32, 241–267.
- Jiang, M., & Xu, H. (2009). Exploring online structures on Chinese government portals: Citizen political participation and government legitimation. *Social Science Computer Review*, 27(2), 174–195.
- Jones, E., & Gaventa, J. (2002). *IDS development bibliography 19: Concepts of citizenship*. Brighton, Sussex, England: Institute of Development Studies.
- Joyce, M. (2007). The citizen journalism website “OhmyNews” and the 2002 South Korean Presidential election. *Internet and democracy case study series*. Berkman Center research publication no 2007–15. Retrieved from http://cyber.law.harvard.edu/publications/2007/The_Citizen_Journalism_Web_Site_Oh-My_News_and_the_South_Korean_Presidential_Election
- Kress, G. (2003). Interpretation or design: From the world told to the world shown. In M. Styles & E. Bearne (Eds.), *Art, narrative and childhood* (pp.137–153). Stoke on Trent: Trentham Books.
- Laverty, C. (2009). Our information literacy heritage: From evolution to revolution. *Felicitas*, 3(55), 88–91.
- Lee, Y. (2009). Internet election 2.0? Culture, institutions, and technology in the Korean presidential elections of 2002 and 2007. *Journal of Information Technology & Politics*, 6(3/4), 312–325.

- Leu, D. J., Jr. (2000). Literacy and technology: Deictic consequences for literacy education in an information age. In M. L. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research Vol. III* (pp. 743–770). Mahwah, NJ: Erlbaum.
- Leu, D. J., O’Byrne, W. I., Zawilinski, L., McVerry, J. G., & Everett-Cacopardo, H. (2009). Comments on Greenhow, Robelia, and Hughes: Expanding the new literacies conversation. *Educational Researcher*, 38(4), 264–269.
- Levine, P. (2008). A public voice for youth: The audience problem in digital media and online education. In W. L. Bennett (Ed.) *Civic life online: Learning how digital media can engage youth* (pp. 119–138). The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press.
- Livingstone, S. (2008a). Internet literacy: Young people’s negotiation of new online opportunities. In T. McPherson (Ed.), *Digital youth, innovation, and the unexpected* (pp. 101–122). Cambridge, MA: The MIT Press.
- Livingstone, S. (2008b). Taking risky opportunities in youthful content creation: teenager’s use of social networking sites for intimacy, privacy, and self-expression. *New Media & Society*, 10(3), 393–411.
- Livingstone, S. (2010). Youthful participation: What have we learned, what shall we ask? In *First annual digital media and learning conference: Diversifying participation, 18–22 February, 2010*, University of California San Diego, CA. Retrieved [http://eprints.lse.ac.uk/27219/1/Youthful_Participation_\(LSERO_version\).pdf](http://eprints.lse.ac.uk/27219/1/Youthful_Participation_(LSERO_version).pdf)
- Martorella, P. (1998) Technology and the social studies or which way to the sleeping giant? *Theory and Research in Social Education*, 25, 511–14.
- McManus, R. (2005, August 6). Web 2.0 is not about version numbers or betas. *Read/Write/Web*. Retrieved September 12, 2010, from http://www.readwrite-web.com/archives/web_20_is_not_a.php
- National Council for the Social Studies. (2009). *NCSS Position Statement on Media Literacy*. Washington, DC: Author. Retrieved from <http://www.socialstudies.org/positions/medialiteracy>
- O’Reilly, T. (2007). What is Web 2.0: Design patterns and business modes for the next generation of software. *Communications & strategies*, 65(1st quarter, pp. 17–37).
- Palser, B. (2009). Amateur content’s star turn. *American Journalism Review*, 31(4), 42.
- Parker, W. C. (1996a). Introduction. *Educating the democratic mind*. Albany, NY: State University of New York Press.
- Parker, W. C. (1996b). “Advanced” ideas about democracy: Toward a pluralist conception of citizen education. *Teachers College Record*, 98, 104–125.
- Parker, W.C. (2008). Knowing and doing in democratic citizenship education. In L.S. Levstik and C.A. Tyson (Eds.), *Handbook of research in social studies education* (pp. 65–80). NY: Routledge.
- Raynes-Goldie, K. & Walker, L. (2008). Our space: Online civic engagement tools for youth. In W. L. Bennett’s (Ed.) *Civic life online: Learning how digital media can engage youth* (pp. 161–188). The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press.

- Richardson, W. (2006). *Blogs, wikis, podcasts, and other powerful web tools for classrooms*. Thousand Oaks, CA: Corwin Press.
- Rosenzweig, R. (2001). The road to Xanadu: Public and private pathways on the history web. *Journal of American History* 88(2), 548–579.
- Samoriski, J. H. (2000). Private spaces and public interests: Internet navigation, commercialism and the fleecing of democracy. *Communication Law & Policy*, 5(1), 93–113.
- Schiffer, A. (2007). Between pajamas and Pulitzers: Distributed gatekeeping and the potential of blogs as news media. *Conference Papers—American Political Science Association*, 1–40.
- Shulman, L.S. (2007). Practical wisdom in the service of professional practice. *Educational Researcher*, 36, 550–563.
- Simon, L. D., Corrales, J., & Wolfensberger, D. (2002). *Democracy and the Internet. Allies or adversaries*. Washington D.C.: Woodrow Wilson Center Press.
- Smith, A. Schlozman, K. H., Veba, S., & Brady, H. (2009). The Internet and civic engagement. *Pew Internet & American Life Project*. Retrieved from, <http://www.pewinternet.org/Reports/2009/15—The-Internet-and-Civic-Engagement.aspx>
- Sunstein, C. (2009). *On rumors: How falsehoods spread, why we believe them, what can be done*. NY: Farrar, Straus & Giroux.
- Tetty, W. J. (2001). Information technology and democratic participation in Africa. *Journal of Asian & African Studies*, 36(1), 133–153.
- Torney-Purta, J. & Richardson, W. (2004). Anticipated political engagement among adolescents in Australia, England, Norway, and the United States. In J. Demaine (Ed.), *Citizenship and political education today* (pp. 41–58). Basingstoke, UK: Palgrave, Macmillan.
- Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries: Civic knowledge and engagement at age fourteen*. Amsterdam: The International Association for the Evaluation of Educational Achievement. Available: <http://www.wam.umd.edu/~iea>
- VanFossen, P.J. & Berson, M. J. (Eds.) (2008). *The electronic republic? The impact of technology on education for citizenship*. Indiana: Purdue University Press.
- Walraven, A., Brand-Gruwel, S., & Boshuizen, H. (2009). How students evaluate information and sources when searching the World Wide Web for information. *Computers & Education*, 52(1), 234–246.
- Watts, M. (2006). Citizenship education revisited: Policy, participation, and problems. *Pedagogy, Culture, & Society*, 14, 83–97.
- Wiltmeyer, P. Q. (2010, May 10). Obama at Hampton U.: ‘Be role models. . . . be mentors’. *The Virginian—Pilot*. Retrieved from <http://hamptonroads.com/2010/05/transcript-obamas-hampton-commencement-address>

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