

Digital Divide: Navigating the Digital Edge

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Introduction: From Digital Divides to Participation Gaps

In the United States many of the issues related to technology, equity, and diversity remain viable. However, by the close of the first decade of the new millennium the contours of the digital divide had shifted in noticeable ways. Much of the early reporting on the digital divide focused on household access to computers and the Internet (U.S. Department of Commerce 1995). Since 2000 the media environment of black and Latino youth, like that of young people in general, has evolved as a result of social, economic, cultural, and technological change. In its first national study of young people's media environment, the Kaiser Family Foundation (Roberts et al. 1999) found that white youth were significantly more likely than black or Latino youth to live in households that owned computers with Internet access. Among youth 8–18 years old, 57% of white youth, 34% of black youth, and 25% of Latino youth lived in homes with Internet access. Consequently, black and Latino youth were less likely than their white counterparts to experience computer-mediated forms of communication, play, and learning from home. A decade later, the Kaiser Family Foundation (Rideout, Foehr, and Roberts 2010) revealed a dramatically different media ecology in the making.

The sharp rise in daily media exposure among young people in general and specifically among black and Latino youth provides evidence of a youth culture and daily life that is saturated with media—television, music media, video games, computers, books, DVDs. According to the 1999 Kaiser report, young people, on average, were exposed to roughly six and a half hours of media per day. The 2010 report finds that young

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people are spending substantially more time with media. Based on self-reported data, Latino and black youth are exposed to about 13 hours of media a day, largely through media multitasking. By contrast, white youth report spending a bit over eight and a half hours a day with media. Probe further and the 2010 Kaiser report is revealing for another reason: the amount of time youth report spending online. On a typical day white youth report spending about one hour and 17 minutes online compared with Latino and black youth, who report spending one hour and 49 minutes and one hour and 24 minutes, respectively. The rising rates of online media among black and Latino youth are supported elsewhere.

By 2005, white, Latino, and African-American teens were more likely to go online than adults of any racial or ethnic group (Lenhart, Hitlin, and Madden 2005). During this period the migration of black and Latino teens to the digital word intensified, and they were just as likely as their white counterparts to use social networking sites (Lenhart et al. 2007; Watkins 2009). The number of young people from households with more modest incomes going online and participating in digital media cultures has been increasing (Lenhart, Hitlin, and Madden 2005). According to the Pew Internet and American Life Project, urban teens as well as less affluent teens are more likely than suburban or rural teens to create and share original artistic content such as artwork, photos, stories, and videos online (Lenhart and Madden 2005). African Americans are 30% more likely than the average American to use Twitter (Pearson-McNeil and Hale 2011).

In years past the great fear was that the digital divide would leave black and Latino youth disconnected from the social, educational, and civic opportunities the Internet affords. However, some of the most urgent questions today are less about access and more about the context and quality of engagement. Specifically, how do race, class, gender, and geography influence the digital media practices of young people? Even as a growing diversity of young people adopts digital media technologies, not all digital media ecologies are equal. Accordingly, noteworthy risks and opportunities are associated with young people's digital lives. But how are the risks and opportunities distributed? And are some youth more likely to experience the risks than the opportunities?

Genres of Participation

For most teens, digital media and mobile phones represent crucial aspects of youth culture, community, and identity. Even as black and Latino participation in the digital media world continues to evolve, the specific attributes of their digital media ecologies remain largely understudied. Empirically, we know little about the content or context of their daily digital media practices. Investigations of the digital lives of black and Latino youth must focus less on the access gap and more on the "participation gap." Whereas the former defines the issues of technology and social inequality largely as a matter of access to computers and the Internet, the latter considers the different skills, competencies, knowledge, practices, and forms of capital that different populations bring to their engagement with networked media. Jenkins and colleagues refer to the participation gap as "the unequal access to the opportunities, experiences, skills, and knowledge that will prepare youth for full participation in the world of tomorrow" (Jenkins et al. 2006, p. 3).

Black and Latino youth are remaking the participation gap in ways that are both promising and perilous (Watkins 2010). Young people's adoption of digital media is shaped by a mix of factors—social, familial, economic, cultural, political—that situate a wide range of digital media activities and forms of engagement. What kinds of digital media practices do black and Latino youth engage in? And how do their practices compel a serious rethinking of the more conventional ideas and theories about young people's digital media behaviors?

Drawing principally from a number of finely crafted ethnographic studies, Ito and collaborators (2010) identify some of the distinct digital media practices—what they call genres of participation—among young people. One of the main domains of youth participation in digital media culture is what the researchers characterize as *friendship-driven* practices. This is a reference to the online activities that many young people find not only appealing but increasingly necessary as they build social communities, peer relations, and cultural identities. In instances like these, young people primarily build spaces through social networking sites and mobile communication in order to socialize, communicate, and maintain social ties while also navigating the drama of teen life. Through this genre of participation young people learn how to grapple with many of the long-standing

rituals of adolescent life, including the management of their peer networks, sexual identities, romantic interests, and in-group status. Through this genre young people also learn how to grapple with challenges that are unique to the digital world, such as online privacy, publicity, and identity (boyd 2007; Ito et al. 2010).

Ito and colleagues refer to another domain of youth participatory culture as *interest driven*. “These are contexts where kids find relationships that center on their interests, hobbies, and career aspirations” (Ito et al. 2010, p. 16). In instances like these, young people seek to develop connections and networks that help them develop expertise in areas of great interest. Participation in digital media culture in cases like these is not about hanging out with friends but rather finding what Gee (2003) refers to as “affinity spaces,” which may include similarly aged peers and adults who share a passion for an interest, hobby, or activity. Interest-driven forms of participation offer an opportunity for deep engagement, learning, expertise, and mastery with a community that extends beyond classmates, neighbors, and local peers.

Ito and colleagues establish a useful framework for thinking in greater detail about the different dimensions of participation that characterize young people’s involvement with digital media. Friendship and interest-driven forms of participation clearly situate distinct literacy practices and learning outcomes. Some of the outcomes associated with interest-driven forms of participation—depth expertise, engagement, efficacy, production, and diverse social networks—make this a potentially rich social and learning experience. When interest-driven activities allow young people to move fluidly between informal and formal learning environments, the opportunity for “connected learning” emerges.

Whereas most young people engage in friendship-driven genres of participation, this is not necessarily true of interest-driven genres. What are the pathways associated with participation in interest-driven practices? Moreover, how do interest-driven genres of participation track social and demographic indicators such as race, ethnicity, class, gender, and geography?

Mapping the Digital Lives of Black and Latino Youth

The digital media lives of Latino and black youth are marked by steady shifts and contradictions. Even as they are more connected than ever before, Latino and African-American youth continue to grapple with

social and economic inequalities that influence their engagement with digital media. Previous studies suggest that the digital divide is not exclusively attributable to economic matters (i.e., the inability to afford computers or Internet access) but also implicates attitudinal and dispositional developments. Seiter (2008) argues that because of the assumptions and ideologies associated with early computer use—namely, that it is middle class, white, and “geeky”—the consequences for working-class youth who strive to acquire cultural capital related to the use of computers might be unpleasant. “It is the penalty of being a nerd, a geek, a kid too identified with school and teachers,” Seiter (2008, p. 41) writes. For kids who attend schools, live in homes, and connect to social networks that lack sufficient opportunities to use computers, developing an aptitude for the technology offers no real currency.

At least, the attitudes reported by Seiter were likely true when computers were associated with spreadsheets, word processing, and office work. As computers have evolved and the social and creative capacities of the Internet have emerged, black, Latino, and working-class youth have become as likely as their white and middle-class counterparts to appreciate and pursue these interests. In one of the first ethnographic studies of Internet use in the home, the HomeNet field trial (Kraut et al. 1995) found almost no difference across race or class in terms of the time and interest that teens devote to the Internet. By the mid-2000s the rising popularity of computer-mediated social networks, especially MySpace (<http://www.myspace.com/>), had transformed the disposition of black and Latino teens toward computer-mediated communication. A considerable part of the appeal of MySpace among black and Latino teens was the opportunity it provided to write and craft social identities and social spaces and connect with peers through popular culture and other shared interests.

Hip-Hop, Cultural Capital, and the Young and the Digital

Historically, the investment of black and Latino youth in social and communication-based technologies has been overlooked. Yet the technological aspirations of black and Latino youth are long-standing. Nowhere is this more evident than in the context of hip-hop culture, a complex cultural terrain marked by various consumption and production practices.

The origins of hip-hop bear a striking resemblance to the participatory norms and practices of early 21st-century digital media culture. Some of the most iconic creative practices associated with early hip-hop—*aerosol art (graffiti) and turntablism*—reflect a serious social and creative investment in technology for the expression of identity and community. Early hip-hop was interest based, peer driven, and propelled by a rich informal learning ecology. Young hip-hop enthusiasts did not learn how to remix turntables, rock rhymes, or make a name for themselves (literally) with graffiti art in formal learning spaces. They learned from one another other in dynamic and supportive social and informal learning ecologies. Black youth were also early and unlikely adopters of one of the first popular mobile communications devices, the pager. In many cases, however, the adoption of pagers by black youth was linked with deviant and criminal behavior, especially drug dealing. The adoption of technological innovation in hip-hop has long been a source of cultural capital—that is, a form of prestige and social currency among a community of peers.

Through hip-hop black and Latino youth develop specific symbols, cultural objects, and expressions of taste, knowledge, and consumption—the “distinctions” Bourdieu (1984) refers to as cultural capital. Whereas Bourdieu links cultural capital to the affluent classes, other applications posit that cultural capital is context specific. Thus, what emerges as prestigious and status conferring in one context may be viewed as lacking prestige or status in another context. Cultural capital, from this perspective, is not exclusive to the privileged classes. Rather, cultural capital is situational, defined and acquired in specific social contexts (Hall 1992).

The formation of status-conferring goods, practices, and forms of knowledge in the social and economic margins has variously been referred to as subculture (Hebdige 1979), subcultural capital (Thornton 1996), and nondominant cultural capital (Carter 2005). In her study of black students, schools, and achievement, Carter (2005) explores what she calls “black cultural capital,” a reference to the group identity, fashion, style, language, music, and specific repertoires of knowledge acquired by the young people she examined. Black cultural capital, Carter maintains, enables young African Americans to gain what they perceive to be an authentic position of cultural status in their peer community. Though cultural capital is not the exclusive domain of the exclusive

classes, not all formations of cultural capital are equal. For example, middle-class-oriented forms of cultural capital—a preference for classical music or modern American literature—are assigned greater recognition and institutional value. Carter explains that teachers and school administrators often interpret black cultural capital—*sartorial style, street slang, and an affinity for rapping*—as deviant, disruptive, and counter to the established norms and expectations maintained by schools.

Still, hip-hop is a vital source of cultural capital for young people around the world (Mitchell 2002). Knowledge of hip-hop culture and engagement in distinct practices such as rapping, music production, spoken word, dancing, sartorial style, and poetry represent the many formations of cultural capital—embodied and objectified—outlined by Bourdieu (1986). Through the accumulation of hip-hop-inflected cultural capital, youth gain social status, recognition, and mobility in their peer communities and participatory digital media cultures.

Hip-hop culture is the dominant medium through which black and Latino teens construct their digital identities, master unique linguistic practices, assemble social ties, and navigate their interests in pop music, videos, fashion, sports, and civic life. Throughout its history hip-hop has been variously condemned and celebrated. But the most insightful investigations of the making and meaning of hip-hop typically illuminate how the cultural practices—*graffiti art, dancing, deejaying, emceeing, spoken word, literature, filmmaking, fashion*—that make up this unique universe of youth culture are connected to larger social, economic, demographic, political, cultural, and global-local formations (Forman 2002; Mitchell 2002; Perry 2004; Chang 2005; Watkins 2006; Forman and Neal 2011).

Take, for example, the analysis of how young black men use social networking sites. Drawing from sociology (Anderson 1999), urban history (Kelley 1997), media and cultural studies (Watkins 1998), hip-hop studies (Forman and Neal 2011), and race and digital media (Watkins 2009), Adam Williams (2011) argues that the digital media identities, performances, and self-creation practices of young black men—how they navigate the popular cultural landscape to gain recognition and prestige—are based largely on the desire to gain respect from their male peers. This bid for respectability is visible across the many platforms that converge in the use of sites like MySpace and

Facebook (<http://www.facebook.com/>), including music, video, photos, animation, wall posts, and status updates. Williams argues, based on a series of focus-group interviews and analyses of social network profiles, that the young black males in his study use digital media both to consume and to produce the masculine poses, scripts, and behaviors they strive to master.

Focusing on MySpace profiles, Williams observes the many ways young black men maneuver to accumulate power and prestige within their peer community through distinct online cultural practices and dispositions. The music and wallpaper they choose align with the hypermasculine poses that are popular in hip-hop. Additionally, the meticulous posing for photos that consistently display bare chests, flexed muscles, and bodies decorated with tattoos and jewelry are used to convey strength, sexual prowess, and what Majors and Mancini Bilson (1993) refer to as the “cool pose.” The digital media practices and identities of young black men reflect the extent to which they covet the fantasies of fame, wealth, and status that color the most popular expressions of black masculinity in the production of corporate hip-hop. In this context, content creation and authorship with digital media develop culturally specific notions of authenticity, social currency, and cultural capital within a distinct peer community.

Creating and Critiquing with Digital Media

While many of the online behaviors of black and Latino teens conform to the participatory genres documented by Ito and colleagues (2010)—namely, the friendship-driven practices—other behaviors do not. Engagement with digital media varies among young people who bring different motivations, inclinations, and life experiences to their use of digital media. What does digital media mean for youth who may be negotiating economic and familial instability, low-performing schools, and marginalized social networks? What if anything is unique about young people’s use of digital media in edge communities?

In addition to observing them creating with digital media, my research has also observed black and Latino youth critiquing with digital media. Such youth are thus participating not only in friendship-driven genres but in “civic-oriented genres.” These are not necessarily explicitly organized acts of civic engagement but rather casual reflections, content, and

modes of expression that broaden the scope of youth digital media practices.

Whereas friendship-driven genres reflect how digital media are used to negotiate the inward-looking world of peer cultures, the civic-oriented genres illuminate some of the distinct ways in which digital media are used to look outward and critically at the world. The experiences of race, class, and geography can play a crucial role in shaping the civic inclinations that mark the digital media practices of black and Latino teens.

In fieldwork I conducted in 2007, I encountered teens who were part of the massive evacuation of New Orleans families caused by Hurricane Katrina. In the wake of the epic storm a number of educators, doctors, psychiatrists, and social workers labored to help children and adolescents develop effective coping strategies to recover socially and emotionally from the hurricane. Some of the teens I met had turned to social media to develop their own ways of coping with the disaster. In addition to grappling with things like a new home, neighborhood, and school, teens were also coping with the sudden and often difficult immersion into completely new peer communities. The teens displaced by Katrina “not only had to deal with the disruption in their families and their own loss, they also had to come to terms with the loss of their friends and classmates” (Fothergill and Peek 2006, p. 106). For many teens displaced by Katrina, the sudden introduction into a new middle or high school presented serious social, emotional, and personal challenges.

In several cases social media emerged as a tool for teens to cope with their own anxieties, fears, and hopes about life in a post-Katrina world. One young man I met was part of the trail of families forced to relocate after the catastrophe. As I learned more about the life he was making after Katrina, I saw that his use of digital media was evolving. Prior to Katrina, a period when MySpace was still the social network of choice for many black and Latino youth (boyd 2011; Hargittai 2007; Watkins 2009), he did not use social networking sites. “I always thought that MySpace was a waste of time,” he explained. But after Katrina he began to look at online social networks differently. Social media, he explained, “is important for me now. Especially after Katrina. . . . like all of my friends got spread all over the U.S. and I found some of them through MySpace.”

In the wake of tragedy, social media developed a unique resonance in the lives of some teen evacuees.

For others, the mobile phone became, quite literally, a lifeline to the peer community they knew before Katrina. In instances like these, teens' digital media repertoire expanded to include reestablishing important social ties at a time when many were going through a period of great social, personal, and emotional upheaval. Fothergill and Peek note that young evacuees used friendships as a support system through the crisis: "[B]y working to maintain friends, be with them, and connect with them, they were seeking ways for their friendships to provide a sense of security" (Fothergill and Peek 2006, p. 120). This was true among the teens I met too. They used social media as a source of social support and emotional security in their efforts to restore their lives and social ties after Hurricane Katrina.

Another example of civic-oriented digital media use is a public memorial that was posted on Facebook and dedicated to the memory of a young man who was the victim of homicidal violence. The young people who contributed to this virtual public memorial used social media to express their thoughts and critiques about life in a socially dislocated community. A few weeks after the page was created, more than 400 comments had been posted, including remarks from teens and adults. Several posts expressed condolences for the family, reflections on the loss of a young life, and anger about the local conditions that fostered what was consistently described as a senseless murder. Many of the comments contributed to the formation of a community-oriented conversation about race, social inequality, geography, and the hidden injuries of racial and class disadvantage that make life in poor neighborhoods a perilous experience. Young people and adults posted comments that assertively questioned the poor quality of life in their community.

Ito and collaborators (2010) remind us that contrary to popular opinion, young people are developing important social, technical, and civic skills while hanging out online. Young people's adoption of social media defies the broad generalizations that typically dismiss their digital media practices as "nonproductive" and a "waste of time." By bringing distinct cultural sensibilities, social critiques, and lived experiences to their engagement with digital media, black and Latino youth are not only remaking the digital divide; they are also expanding the genres of participation that mark young people's engagement with digital media.

The Mobile Paradox

One of the biggest social and technological shifts in the new millennium has been the growing number of teens who own mobile devices, including iPods, laptops, e-book readers, and mobile phones. In 2004 roughly 40% of 12- to 17-year-olds owned a mobile phone (Lenhart 2009). By 2010 three in four, or 75%, owned a mobile phone (Lenhart et al. 2010). The mobile phone is a hub of teen life, serving variously as the center for teen communication, identity, peer networks, and media consumption (Ling 2007; Lenhart et al. 2010). Although young people in general have migrated to mobile phones, black and Latino youths' engagement with these devices is especially robust compared with their white counterparts. Take, for example, the use of the Internet via mobile phones. Latinos are more likely than whites to use mobile phones for accessing the Internet and email and for instant messaging, and African Americans are slightly more likely than Latinos or whites to use mobile phones to perform these activities (Livingston 2011). From 2007 to 2009 handheld Internet use on an average day grew by 73% for the general U.S. population, but for African Americans it grew by 141% (Horrigan 2009).

Much of the empirical data suggest that black and Latino youth are much more active than their white and Asian American counterparts when it comes to using their mobile devices to play games, watch video, listen to music, and manage their online social networks. According to Rideout, Foehr, and Roberts (2010), black and Latino youth are the heaviest consumers of media content via the mobile phone. Among racial and ethnic groups, black youth spend the most time using their phones on a daily basis for music, games, and videos: almost an hour and a half (88 minutes), compared with 64 minutes for Hispanics and 26 minutes for white youth.

Data points like these compel some to argue that mobile devices are closing America's digital divide (Wortham 2009). In reality, a more complex picture is forming. If we define the digital divide as largely a matter of access to technology, then Internet-capable phones, to the degree that poor and working-class communities can afford them, may be bridging the access gap. A surging number of poor households are choosing to go with a mobile phone over a landline, largely because they cannot afford both (Tavernise 2011). In 2009 the Pew Internet and American Life Project reported that African Americans were more

likely than any other racial or ethnic group to go online via a mobile phone. Latinos, Asian Americans, and African Americans are more likely to own smartphones than are whites (Kellogg 2011). But if we define the divide in terms of participation and social ecology, the issue of mobile phones and equity is cloudy at best. If mobile phones are primarily being used as an anytime, anywhere source to access games, music, and video, then the capacity of these devices to bridge the participation gap may not be realized.

The mobile lives of black and Latino youth raise a number of interesting questions about the shifting contours of the digital divide and represent, more generally, a *mobile paradox*. On the one hand, the adoption of mobile phones and the mobile Internet among African Americans and Latinos suggests they are early adopters and mobile trendsetters in the United States (Horrigan 2009). On the other hand, the environment in which black and Latino teens use mobile devices suggests that they continue to grapple with the social and economic disadvantages associated with life in the social and economic margins. Paradoxically, even as black and Latino youth are early adopters of mobile devices they are also less likely than white youth to grow up in households with access to broadband Internet.

A 2010 report by the National Telecommunications and Information Administration titled *Digital Nation: 21st Century America's Progress toward Universal Broadband Internet Access* found that broadband households tend to be younger, white or Asian, highly educated, married, and with higher incomes. Conversely, households without broadband tend to be older, black or Latino, less educated, low income, and underemployed.

Home broadband is associated with a richer Internet experience. Households with broadband, for instance, are much more likely than those without to use the Internet for a wider array of activities—social, educational, political, and recreational. Broadband households are also much more likely to create and share content. Youth with home access to broadband have more opportunities than youth without to build rich informal learning ecologies that promote digital exploration, experimentation, and content creation (Seiter 2008). These outcomes are related to interest-driven forms of digital media participation and potentially richer learning experiences.

For Latino and African-American youth the mobile phone has become an alternative gateway to the

kinds of digital media activities they prefer—social networking, status updates, sharing photos, and consuming media like games, music, and video. But is this path to the online world limited? While mobile phones can be a tool for creativity, learning, and civic engagement, credible concerns have been raised that teens who are restricted to mobile phones for home Internet use may also be restricted to media ecologies and social networks that rarely, if ever, afford access to these kinds of experiences. Although only a small percentage of young people are using mobile devices as a powerful learning tool today, the percentage is growing. The issue is not whether rich and meaningful mobile learning ecologies will develop. As the *NMC Horizon Report: 2011 K-12 Edition* (Johnson, Adams, and Haywood 2011) shows, they already exist. Rather, the real question is, will these mobile learning ecologies be distributed in ways that close or maintain America's learning divide?

Learning Futures: Digital Media, Literacy, and the Education Achievement Gap

The increasing use of digital media among black and Latino youth comes at a time when educators, researchers, policymakers, parents, and technology advocates are beginning to think in more nuanced ways about the risks and opportunities associated with young people's digital lives (Livingstone and Haddon 2009). Shifts in the digital media practices of black and Latino youth raise crucial questions and suggest that delivering a more equitable digital future requires more than access to technology. Although black and Latino youths' engagement with digital media redefines how we think about digital divides and participation gaps, a number of issues related to technology and social inequality persist. One area of growing interest is the potential impact of digital media in the learning futures of Latino and African-American students.

Even as black and Latino youth have built a robust informal media ecology, a debate has emerged: To what extent does their participation in digital media culture enhance learning outcomes such as motivation (Ames and Archer 1988), grit (Duckworth et al. 2007), and academic success (Datnow and Cooper 1997) while also encouraging the development of hybrid learner identities such as writers, designers, journalists, scientists, researchers, and teachers (Salen et al. 2011)? And what evidence exists that

Latino and African-American engagement with media technology produces behaviors and learning outcomes that might impact the academic achievement gap?

Despite the recent gains by black students in, for example, educational testing, they lag far behind their white counterparts (Barton and Coley 2010). A 2009 report by the U.S. Department of Education (Vanneman et al. 2009) found that white students score, on average, at least 26 points higher than black students in mathematics and reading on the National Assessment of Educational Progress exams. The achievement gap in civic literacy—a key predictor of youth civic engagement—is also wide among youth of different race and ethnic identities (National Center for Education Statistics 2011).

Several school-related factors have been identified to explain the achievement gap, including poorly equipped schools, academic tracking (Oakes 2005), low teacher expectations (Downey and Pribesh 2004; Delpit 2005), student attitudes toward academic achievement (Fordham and Ogbu 1986; Cook and Ludwig 1998; Carter 2005), and student academic skill level (Harris 2011). Other researchers look beyond the classroom—to neighborhood context, familial dynamics, demographic shifts—to understand the racial achievement gap. Ferguson (2006) attributes the racial differences in academic performance to sharp racial and ethnic disparities in the home media ecologies and intellectual lifestyles of students.

In a survey of more than 3,000 students, blacks and Latinos were much more likely than their white or Asian counterparts to have a television and computer in their bedroom (Ferguson 2006). Some noteworthy differences can also be found in what Ferguson characterizes as the intellectual lifestyles of young people. White and Asian students, for example, are much more likely than black and Latino students to report that they “read almost everyday at home” (Ferguson 2006). Assessing data drawn from the U.S. Department of Education, Ferguson finds that white children have access to substantially more books at home compared with their black counterparts. The findings regarding books are similar to other studies that report a vast difference in the “literacy environments” that poor and middle-class youths inhabit (Neuman and Celano 2001).

In their study of young people’s home media ecology, Rideout, Foehr, and Roberts (2010) find that books are the only media that white youth own more

of than do African-American or Latino youth. Also, black and Latino youth are more likely than their white, Asian, and Latino counterparts to report that at home they watch television more than they participate in any other activity (Ferguson 2006). These and other factors, Ferguson maintains, establish home environments and lifestyles that orient young people toward certain media behaviors, literacy practices, and learning dispositions that contribute to disparate educational outcomes.

Historically, the research literature on youth media consumption has consistently reported that black youth consume more entertainment media than their white counterparts. Television is a commonly cited example (Greenberg and Dominick 1970; Poindexter and Stroman 1981). As digital media platforms—computers, mobile phones, the Internet—have become more entertainment oriented and affordable, their use among modest- to low-income households has steadily increased—a fact that should come as no great surprise, given the historical trends.

Though several factors explain the sharp differences in the leisure lives, media behaviors, and literacy practices of young people, the most important factor might be the familial context. The after school activities of children in middle-class households are heavily structured and often include adult supervision and instruction. By contrast, children in poor households tend to have more unstructured time, and thus the conditions of their leisure lives vary greatly from those of their middle-class counterparts (Lareau 2003). Because poor kids find themselves with fewer opportunities for out-of-school extracurricular activities and adult supervision, they may turn to media entertainment as a way to fill in considerable portions of their non-school-related day.

The practices associated with the “making up” of the middle-class child (Ball and Vincent 2005) attempt to fill time away from school with educationally enriching activities. This represents what Walkerdine (1999) calls the “full diary syndrome,” a reference to youth whose out-of-school schedules are filled with a variety of activities that leave little time for leisure in general and media consumption specifically.

Even as digital and mobile media platforms are available in a greater diversity of households, the different cultural environments in which young people use technology leads to different intensities of engagement and, ultimately, to different learning outcomes.

Conclusion: Digital Literacy = Digital Equity

Ongoing concerns about the digital divide notwithstanding, black and Latino youth maintain active digital media lives. Not that long ago black and Latino youth rarely figured in the national conversation about young technology users. The data today, however, strongly suggest that in many respects they are among the earliest and most resilient adopters of communications technologies. Through sheer determination and innovation young people in the social and economic margins are changing the shape of the digital divide (Watkins 2010). These changes, however, are marked by both promise and peril.

One of the most urgent challenges regarding technology, diversity, and equity is the need to expand digital literacy; that is, the development of young people's capacity not only to access and use digital media but to use digital media in ways that create more enhanced and more empowered expressions of learning, creative expression, and civic engagement. The emphasis on digital literacy shifts the focus from access to the skills and expertise that establish more robust and more meaningful learning outcomes. The divide that deserves increasing attention from educators, media researchers, and practitioners is the "digital literacy divide."

Digital literacy is defined in many ways but is most useful when understood along a continuum of competencies (Lankshear and Knobel 2008). One end of the continuum involves what Kathleen Tyner (1998) calls "tools literacy." This domain emphasizes lower-order computing skills and involves teaching students to use some of the most basic computer applications, including those for word processing, Web browsing, search, and navigation. The other end of the continuum involves the ability to use information effectively and in the context of specific life situations in order to enable constructive social action (Martin 2008). This domain emphasizes higher-order computing skills such as communication across multiple platforms and the ability to create multimodal texts—Web pages, video, blogs, documents, games, and mobile applications.

Beyond basic digital literacy is the need to support a vision that defines digital literacy as a life skill that is connected to the everyday lives and situations of youth and their communities. Call it "design literacy"—that is, the capacity to engage in critical

thinking, inquiry and discovery, and real world problem solving. Tools literacy is foundational; design literacy is transformational.

Whereas the digital media practices of Latino and black youth are generally considered marginal, current population patterns strongly suggest otherwise. The 2010 U.S. census presents a revealing snapshot of a young America undergoing profound demographic transitions. In many of the major metropolitan areas in the United States, the youth population is significantly shaped by the growing presence of young Latinos, Asians, multiracials, and African Americans. The child population represents what William Frey (2011c), senior fellow at the Brookings Institute, calls a "demographic pivot."

From 2000 to 2010 the U.S. population under age 18 grew by less than 3%. Latinos, Asians, and multiracial youth drove almost all of the growth that did occur. The 2010 U.S. census shows an interesting trend: Among Americans age 85 and older, nonwhites make up 15% of the population, but they make up nearly half, 49%, of the population under age 5 (Frey 2011a). A growing number of states (10) and major metropolitan areas (35) currently have minority white child populations (Frey 2011b). If current birth rates and immigration trends continue, America will achieve a national majority-minority child population in a little more than a decade, by 2023.

These trends underscore the primary crisis in public education: the failure to provide Latino, immigrant, and African-American youth with an education that adequately prepares them for the 21st century. The dropout rates among Latinos and African Americans remain remarkably high (Greene 2002). Similarly, the poverty rates for Latino children, 35%, and African-American children, 39%, are substantially higher than the 12% rate for whites (Lopez and Velasco 2011). Any discussion of the future of public education must consider these demographic shifts and the implications for the kinds of schools, learning environments, and literacy practices that are forming today. Any serious effort to secure America's future labor force, public health, and civic life must include the transformation of public education. Digital literacy should be one of the core goals of the transformation. Although digital literacy is still considered a luxury in schools located in low-income communities, it is, in reality, a necessity.

References

- Ames, Carole, and Jennifer Archer. 1988. Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology* 80:260–67. doi:10.1037/0022-0663.80.3.260.
- Anderson, Elijah. 1999. *Code of the street: Decency, violence, and the moral life of the inner city*. New York: W. W. Norton.
- Ball, Stephen, and Carol Vincent. 2005. "Making up" the middle-class child: Families, activities and class dispositions. Paper presented at the British Educational Research Association Conference, Glamorgan, UK.
- Barton, Paul, and Richard Coley. 2010. *The black-white achievement gap: When progress stopped*. Princeton, NJ: Educational Testing Service.
- Bourdieu, Pierre. 1984. *Distinction: A social critique of the judgment of taste*. Cambridge, MA: Harvard University Press.
- Bourdieu, Pierre. 1986. The forms of capital. In *Handbook of theory and research for the sociology of education*, ed. John G. Richardson, 241–58. New York: Greenwood.
- boyd, danah. 2007. Why youth (heart) social network sites: The role of networked publics in teenage social life. In *Youth, identity, and digital media*, ed. David Buckingham, 112–35. Cambridge, MA: MIT Press. <http://mitpress.mit.edu/catalog/item/default.asp?tttype=2&tid=12594> (accessed October 30, 2011).
- boyd, danah. 2011. White flight in networked publics? How race and class shaped American teen engagement with MySpace and Facebook. In *Race after the Internet*, ed. Lisa Nakamura and Peter Chow-White. London: Routledge.
- Carter, Prudence. 2005. *Keepin' it real: School success beyond black and white*. London: Oxford University Press.
- Chang, Jeff. 2005. *Can't stop won't stop: A history of the hip hop generation*. New York: St. Martin's Press.
- Cook, Philip, and Jens Ludwig. 1998. The burden of "acting white": Do black adolescents disparage academic achievement? In *The black-white test score gap*, ed. Christopher Jencks and Meredith Phillips, 375–400. Washington, DC: Brookings Institution.
- Datnow, Amanda, and Robert Cooper. 1997. Peer networks of African American students in independent schools: Affirming academic success and racial identity. *Journal of Negro Education* 66:56–72. doi:10.2307/2967251.
- Delpit, Lisa. 2005. *Other people's children: Cultural conflict in the classroom*. New York: New Press.
- Downey, Douglas, and Shana Pribesh. 2004. When race matters: Teachers' evaluations of students' classroom behavior. *Sociology of Education* 77:267–82. doi:10.1177/003804070407700401.
- Duckworth, Angela, Christopher Peterson, Michael Mathews, and Dennis Kelly. 2007. Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology* 92 (6):1087–101. doi:10.1037/0022-3514.92.6.1087.
- Ferguson, Ronald F. 2006. How youth culture, parenting, and the quality of instruction contribute to achievement gaps and why we can do better. Benjamin E. Mays Lecture, Georgia State University.
- Fordham, Signithia, and John Ogbu. 1986. Black students' school success: Coping with the "burden of 'acting white.'" *Urban Review* 18:176–206. doi:10.1007/BF01112192.
- Forman, Murray. 2002. *The 'hood comes first: Race, space, and place in rap and hip-hop*. Middletown, CT: Wesleyan University Press.
- Forman, Murray, and Mark Anthony Neal. 2011. *That's the joint: The hip hop studies reader*. New York: Routledge.
- Fothergill, Alice, and Lori Peek. 2006. Surviving catastrophe: A study of children in Hurricane Katrina. In *Learning from catastrophe: Quick response research in the wake of Hurricane Katrina*, ed. Natural Hazards Center, 97–130. Boulder, CO: Boulder Institute of Behavioral Science, University of Colorado at Boulder.
- Frey, William. 2011a. America reaches its demographic tipping point. http://www.brookings.edu/opinions/2011/0826_census_race_frey.aspx (accessed October 30, 2011).
- Frey, William. 2011b. America's diverse future: Initial glimpses at the U.S. child population from the 2010 census. http://www.brookings.edu/papers/2011/0406_census_diversity_frey.aspx (accessed October 30, 2011).
- Frey, William. 2011c. A pivotal decade for America's white and minority populations. http://www.brookings.edu/opinions/2011/0325_census_demographics_frey.aspx (accessed October 30, 2011).
- Gee, James Paul. 2003. *What video games have to teach us about literacy and learning*. New York: Palgrave Macmillan.
- Greenberg, Bradley, and Joseph Dominick. 1970. Television behavior among disadvantaged children. In *Use of the mass media by the urban poor*, ed. Bradley Greenberg and Brenda Dervin, 331–44. New York: Praeger.
- Greene, Jay P. 2002. *High school graduation rates in the United States*. New York: Center for Civic Innovation at the Manhattan Institute. http://www.manhattan-institute.org/pdf/cr_baeo.pdf (accessed October 30, 2011).
- Hall, John R. 1992. The capital(s) of cultures: A nonholistic approach to status situations, class, gender, and ethnicity. In *Cultivating differences: Symbolic boundaries and the making of inequality*, ed. Michele Lamont and Marcel Fournier, 257–85. Chicago: University of Chicago Press.
- Hargittai, Eszter. 2007. Whose space? Differences among users and non-users of social network sites. *Journal of Computer-Mediated Communication* 13 (1). <http://jcmc.indiana.edu/vol13/issue1/hargittai.html> (accessed October 31, 2011).
- Harris, Angel L. 2011. *Kids don't want to fail: Oppositional culture and the black-white achievement gap*. Cambridge, MA: Harvard University Press.
- Hebdige, Dick. 1979. *Subculture: The meaning of style*. London: Methuen.
- Horriggan, John. 2009. *Wireless Internet use*. Washington, DC: Pew Internet and American Life Project.

- <http://www.pewinternet.org/Reports/2009/12-Wireless-Internet-Use.aspx> (accessed October 30, 2011).
- Ito, Mizuko, Sonja Baumer, Matteo Bittanti, danah boyd, Rachel Cody, Becky Herr-Stephenson, Heather A. Horst et al. 2010. *Hanging out, messing around, and geeking out: Kids living and learning with new media*. Cambridge, MA: MIT Press. http://mitpress.mit.edu/books/full_pdfs/Hanging_Out.pdf (accessed October 30, 2011).
- Jenkins, Henry, Katie Clinton, Ravi Puruhotma, Alice J. Robison, and Margaret Weigel. 2006. *Confronting the challenges of participatory culture: Media education for the 21st century*. Cambridge, MA: MIT Press. <http://mitpress.mit.edu/catalog/item/default.asp?ttype=2&tid=12010> (accessed October 30, 2011).
- Johnson, L., S. Adams, and K. Haywood. 2011. *The NMC horizon report 2011 K-12 edition*. Austin, TX: New Media Consortium. <http://www.nmc.org/publications/horizon-report-2011-k-12-edition> (accessed October 30, 2011).
- Kelley, Robin D. G. 1997. *Yo' mama's disfunkcional! Fighting the culture wars in urban America*. Boston: Beacon Press.
- Kellogg, Dan. 2011. Among mobile phone users, Hispanics, Asians are most-likely smartphone owners in the U.S. *NielsenWire* [blog]. <http://blog.nielsen.com/nielsenwire/consumer/among-mobile-phone-users-hispanics-asians-are-most-likely-smartphone-owners-in-the-u-s/> (accessed October 30, 2011).
- Kraut, Robert, William Scherlis, Tridas Mukhopadhyay, Jane Manning, and Sara Kiesler. 1995. The HomeNet field trial of residential Internet services. *Communications of the ACM* 39 (12):55–63. doi:10.1145/240483.240493.
- Lankshear, Colin, and Michele Knobel. 2008. *Digital literacies: Concepts, policies and practices*. New York: Peter Lang.
- Lareau, Annette. 2003. *Unequal childhoods: Class, race, and family life*. Berkeley: University of California Press.
- Lenhart, Amanda. 2009. *Teens and mobile phones over the past five years: Pew Internet looks back*. Washington, DC: Pew Internet and American Life Project. <http://www.pewinternet.org/Reports/2009/14-Teens-and-Mobile-Phones-Data-Memo.aspx> (accessed October 30, 2011).
- Lenhart, Amanda, Paul Hitlin, and Mary Madden. 2005. *Teens and technology*. Washington, DC: Pew Internet and American Life Project. <http://www.pewinternet.org/Reports/2005/Teens-and-Technology.aspx> (accessed October 30, 2011).
- Lenhart, Amanda, Rich Ling, Scott Campbell, and Kristen Purcell. 2010. *Teens and mobile phones*. Washington, DC: Pew Internet and American Life Project. <http://www.pewinternet.org/Reports/2010/Teens-and-Mobile-Phones.aspx> (accessed October 30, 2011).
- Lenhart, Amanda, and Mary Madden. 2005. *Teen content creators and consumers*. Washington, DC: Pew Internet and American Life Project. <http://www.pewinternet.org/Reports/2005/Teen-Content-Creators-and-Consumers.aspx> (accessed October 30, 2011).
- Lenhart, Amanda, Mary Madden, A. R. McGill, and A. Smith. 2007. *Teens and social media*. Washington, DC: Pew Internet and American Life Project. <http://www.pewinternet.org/Reports/2007/Teens-and-Social-Media.aspx> (accessed October 2, 2011).
- Ling, Richard. 2007. Children, youth and mobile communication. *Journal of Children and Media* 1 (1):60–67. doi:10.1080/17482790601005173.
- Livingston, Gretchen. 2011. Latinos and digital technology, 2010. Washington, DC: Pew Hispanic Center. <http://pewhispanic.org/reports/report.php?ReportID=134> (accessed October 30, 2011).
- Livingstone, Sonia, and Leslie Haddon. 2009. *Kids online: Opportunities and risks for children*. Bristol, UK: Policy Press.
- Lopez, Mark Hugo, and Gabriel Velasco. 2011. The toll of the great recession: Childhood poverty among Hispanics sets record, leads nation. Washington, DC: Pew Hispanic Center. <http://pewhispanic.org/reports/report.php?ReportID=147> (accessed October 30, 2011).
- Majors, Richard, and Janet Mancini Bilson. 1993. *Cool pose: The dilemmas of black manhood in America*. New York: Touchstone.
- Martin, Allan. 2008. Digital literacy and the digital society. In *Digital literacies: Concepts, policies and practices*, ed. Colin Lankshear and Michele Knobel, 151–76. New York: Peter Lang.
- Mitchell, Tony. 2002. *Global noise: Rap and hip hop outside the USA*. Middletown, CT: Wesleyan University Press.
- National Center for Education Statistics. 2011. *The nation's report card: Civics 2010*. Washington, DC: National Assessment of Educational Progress. <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011466> (accessed October 30, 2011).
- National Telecommunications and Information Administration. 2010. Digital Nation: 21st Century America's Progress toward Universal Broadband Internet Access. February 2010. Washington, DC: U.S. Department of Commerce.
- Neuman, Susan B., and Donna Celano. 2001. Access to print in middle- and low-income communities: An ecological study of four neighborhoods. *Reading Research Quarterly* 36:8–26. doi:10.1598/RRQ.36.1.1.
- Oakes, Jeannie. 2005. *Keeping track: How schools structure inequality*. London: Yale University Press.
- Pearson-McNeil, Cheryl, and Todd Hale. 2011. Dissecting diversity: Understanding the ethnic consumer. *Nielsen Wire* [blog]. <http://blog.nielsen.com/nielsenwire/consumer/dissecting-diversity-understanding-the-ethnic-consumer/> (accessed October 30, 2011).
- Perry, Imani. 2004. *Prophets of the hood: Politics and poetics in hip hop*. Durham, NC: Duke University Press.
- Poindexter, Paula M., and Carole A. Stroman. 1981. Blacks and television: A review of the research literature. *Journal of Broadcasting* 25:103–22. doi:10.1080/08838158109386436.

KEYWORDS

- Rideout, Victoria J., Ulla G. Foehr, and Donald Roberts. 2010. *Generation M²: Media in the lives of 8- to 18-year-olds*. Menlo Park, CA: Kaiser Family Foundation. <http://www.kff.org/entmedia/mh012010pkg.cfm> (accessed October 30, 2011).
- Roberts, Donald F., Ulla G. Foehr, Victoria J. Rideout, and Mollyann Brodie. 1999. *Kids and media at the new millennium*. Menlo Park, CA: Kaiser Family Foundation. <http://www.kff.org/entmedia/1535-index.cfm> (accessed October 30, 2011).
- Salen, Katie, Robert Torres, Loretta Wolozin, Rebecca Rufo-Teppe, and Arana Shapiro. 2011. *Quest to learn: Developing the school for digital kids*. Cambridge, MA: MIT Press. http://mitpress.mit.edu/books/full_pdfs/Quest_to_Learn.pdf (accessed October 30, 2011).
- Seiter, Ellen. 2008. Practicing at home: Computers, pianos, and cultural capital. In *Digital youth, innovation, and the unexpected*, ed. Tara McPherson, 27–52. Cambridge, MA: MIT Press. <http://mitpress.mit.edu/catalog/item/default.asp?tttype=2&tid=12591> (accessed October 30, 2011).
- Tavernise, Sabrina. 2011. Youth, mobility and poverty help drive cellphone-only status. *New York Times*, April 20. <http://www.nytimes.com/2011/04/21/us/21wireless.html> (accessed October 30, 2011).
- Thornton, Sara. 1996. *Club cultures: Music, media, and sub-cultural capital*. Middletown, CT: Wesleyan University Press.
- Tyner, Kathleen. 1998. *Literacy in a digital world*. Mahwah, NJ: Lawrence Erlbaum.
- U.S. Department of Commerce. 1995. *Falling through the net: A survey of the "have nots" in rural and urban America*. Washington, DC: National Telecommunications and Information Administration. <http://www.ntia.doc.gov/ntiahome/fallingthru.html> (accessed October 30, 2011).
- Vanneman, Alan, Linda Hamilton, Janet Baldwin Anderson, and Taslima Rahman. 2009. *Achievement gaps: How black and white students in public schools perform in mathematics and reading on the National Assessment of Educational Progress*. NCES 2009-455. Washington, DC: National Center for Education Statistics. <http://nces.ed.gov/nationsreportcard/pdf/studies/2009455.pdf> (accessed October 30, 2011).
- Walkerdine, Valerie. 1999. Violent boys and precious girls: Regulating childhood at the end of the millennium. *Contemporary Issues in Early Childhood* 1 (1):3–23. doi:10.2304/ciec.2000.1.1.5.
- Watkins, S. Craig. 1998. *Representing: Hip hop culture and the production of black cinema*. Chicago: University of Chicago Press.
- Watkins, S. Craig. 2006. *Hip hop matters: Politics, pop culture and the struggle for the soul of a movement*. Boston: Beacon Press.
- Watkins, S. Craig. 2009. *The young and the digital: What the migration to social network sites, games, and anytime, anywhere media means for our future*. Boston: Beacon Press.
- Watkins, S. Craig. 2010. Living on the digital margins: How black and Latino youth are remaking the participation gap. Keynote address at the Digital Media and Learning Conference, University of California, San Diego, and the MacArthur Foundation.
- Williams, Adam Clark. 2011. Consuming and performing black manhood: The post hip-hop generation and the consumption of popular media and cultural products. MA thesis, University of Texas at Austin.
- Wortham, Jenna. 2009. Mobile Internet use shrinks digital divide. *New York Times*, July 22. <http://bits.blogs.nytimes.com/2009/07/22/mobile-internet-use-shrinks-digital-divide/> (accessed October 30, 2011).