Computers are one facet of our media saturated society. Their present-day existence has redefined how individuals interact. As any social fixture, this technological tool remains subject to sex differences. Although diminishing, boys still tend to use computers more and have more self-confidence with them than girls (Colley & Comber, 2003). Responsively, more reports and programs increasing and enhancing girls’ interactions with technology have emerged (Miller, 1996; Valenza, 1997; Volman & van Eck, 2001; Weinman & Haag, 1991). However, African American girls and their relationships to technology are narrowly understood. Indeed, software designers rarely consider African American girls as a potential audience (Morgan, 2002). Beyond the technology world, many social scientists also ignore the complex, lived experiences of African American girls and focus on their strangeness (Collins, 2000; hooks, 1984). The limited research on African American girls does suggest some unique racialized-genderized patterns of behaviors (Scott, 2002, 2003; Horvat & Lewis, 2003). How these behaviors appear, if at all, in virtual space remains misunderstood. Since students attending low-income schools have more school access to computers than ever before (Warschauer, et al., 2004), knowledge of how African American girls in under-resourced schools interact in virtual space versus real-time may benefit scholars, practitioners, and software designers.

In this article, I discuss the results of two qualitative studies concerning a group of 58 African American girls attending an urban school district. Findings from the first study document year one of a longitudinal project examining how the girls develop socially and academically in a state-operated school district. Data from the second study, illustrate how a subgroup of the girls (n=22) develop their technology skills. Drawing on Black Feminist Theory, this article compares the findings from both projects to explore how this group of African American girls’ peer behaviors, recorded during their school interactions, juxtapose with their peer interactions in cyberspace.

Analysis of the data reveals themes of connectedness, autonomy, individuality, body self-imaging, and control. In the real-time (actual time) context of the classroom; in an extracurricular empowerment group; and in virtual spaces provided by a summer technology camp, the girls maintained their interest in creating and maintaining a strong female collection. An integral part of their connectedness was establishing their individuality. In both settings, the girls took great pains to present a multifaceted self that was concerned with both political and personal issues. Not surprisingly, language became the primary means of self-expression in both real-time and virtual contexts. While presenting images of themselves as strong African American females seemed to be the norm for this peer culture, when the girls were allowed to manipulate digital photos of themselves on computers, they modified their images according to mainstream beauty standards. In this way, technology became a means to exercise control over their social lives; little attention was paid to the intellectual benefits of technology despite understanding how it could benefit their professional aspirations. How the African American girls in this context relate to each other and how they use the technology available to them has implications not only for educators using technology in the classroom, but also for computer software designers.

Where is Black Barbie?

Efforts to create gender-sensitive software with games and sites aimed at girls have lagged behind attempts to create software that may appeal to girls from various racial and ethnic groups. Importantly, there are few educational software programs or games starring female characters in general and females of color in particular (AAUW, 2000). When they do exist, African American female game characters are often portrayed as victims of violence, non-competitors, or even simple props. The disproportionate White female characters in computer games further stereotypes, as they often represent helpless princesses, caregivers, or high-pitched damsels-in-distress with hypersexualized physical attributes (Linn, 1999). Most children's computer software programs identify boys as their key market over girls. When girls are considered, software designers tend to cater more to White girls' sensibilities than their African American correlates. For example, the first game aimed at the girls’ market, Barbie Fashion Designer, shows two girls on the game’s cover playing the game together at a computer. One is White and the other is African American. However, "the game itself offers only a White, blond-haired Barbie character to dress" (Fisher, 2003, p.24). Since girls demonstrate a greater need to feel that they can relate to female game characters than boys, (Subrahmanyam & Greenfield, 1998) the absence of strong African American female characters in computer games may impede Black girls' interactions with this software. In addition, because girls tend to use the Internet for games (Schoenberg, 2001), the limited number of Black female game images may also depress Black girls' online usage. So how do African American girls relate to technology?

Little is know as to what games, computer software, or sites appeal to African American girls. Research on girls' technological
preferences tends to essentialize the female experience. That girls enjoy creating webpages for peer interaction, articulating one's voice without instant reprisal, communicating with others, presenting a confident self and receiving information about "embarrassing topics" has been noted (Fisher, 2003). However, these behaviors do not necessarily apply to African American girls.

**Black Female Networks**

African American girls and women value a female network that offers a "safe space" (Collins, 2000). Black Feminist theorists explain that safe spaces "constitute one mechanism among many designed to foster Black women's empowerment and enhance our ability to participate in social justice projects" (ibid. p. 110). In these spaces, Black women develop ideas of how to confront controlling images and daily oppressions. The safe spaces Black female networks create also permit African American women to use their unique language patterns. Among other trusted members of the network, Black women create a space in which their dreams, hopes, pain, and struggles can be voiced using a multitude of speech styles. Hobbs (2004) found that African American women's diverse discourse practices not only demonstrate their ability to code switch during verbal expressiveness, but to also adopt different speech styles in various written contexts. Although both the print and on-line versions of the African American female space Hobbs examined - namely, the magazine *Essence* - reflect the lived experiences of African American women, it is in the on-line magazine where she noted a unique "production of a discourse that combines spoken and written elements to create a new form" (p. 10). Free from critical eyes, these interactive spaces nurture an environment in which Black women can continuously define themselves without recrimination. Self-definition becomes a journey to understanding the oppressive forces shaping the Black female experiences (Collins, 2000). Empirical research suggests how some African American girls respond to this process.

**Multiple Selves and African American Girls**

Some scholars argue that when low-income African American students recognize their disadvantaged positions, the realization can foster an ideology opposing academic achievement and which can equate success with "acting White" (Fordham & Ogbu, 1986; Fordham, 1988, 1996; Ogbu, 1989, 1990). Other work, however, presents a more nuanced explanation, suggesting that some students from this population may become inspired to succeed (O'Connor, 1997, 1999; Horvat & Lewis, 2003).

In her ethnographic study of 46 low-income, African-American adolescents attending two under-resourced Chicago high schools, O'Connor (1997) outlines many disheartening images of collective disengagement, pessimism, and perceived hopelessness for social mobility. Assuming that their chances to achieve their own aspirations were slim, the majority (n=40) of her participants put forth little academic effort. However, she identified six participants who did achieve. These participants continued to be optimistic about their futures despite their consciousness of structural constraints, and they established a strong Black collective identity of struggle. Two of the six participants were African American girls who recognized not only racial and social class constrictions, but also the interplay of gender as another intersecting unit on their achievements. These two students, like the others, still developed a disposition, a selfhood O'Connor describes as resilient. More recent research corroborates O'Connor's findings.

Horvat and Lewis's (2003) study explores peer influence on high-achieving African American girls. Challenging Ogbu (1989, 1990) and Fordham's (1988, 1996) claim that high-achieving African American students often experience rejection from their same-race peers who gain academic success, Horvat and Lewis reveal a slightly different account. Many of the girls in their work admit that they feel discomfort discussing their accomplishments with some of their peers and learn to circumvent the topic. As a result, they maintain contact with their same-race, same-gender peers without envy. However, some of the participants describe how their peers enjoy communicating with them and express pride in their accomplishments despite their own perceived failures. Importantly, a Black female network-one to which different African American female selves may belong - prevails in such instances. Even for young African American girls, neither achievement nor a unique self disrupts the female collectivity. Among low-income, first-grade African American girls who attended a predominantly African American school, I (Scott 2002, 2003) chronicled how a female network of students formed an integral part of their peer culture. Even when the most egregious of social infractions occurred (e.g. divulging group secrets to boys), the culprit's quantity and quality of interactions with the rest of the group did not change. The girls in this context developed a culture intolerant of social exclusion. Oppositional behavior and attitudes were accepted as unique, individual traits. Indeed, promoting one's individuality within the group became an important performance within the network's space. As unique members of the female cohort with articulated distinct talents and gifts, group interdependency shaped the contours of this collective. Importantly, I did not note the same level of inclusiveness among the first-grade African American girls located in a more affluent, culturally-diverse school. In this middle-income context, a White female hierarchical peer structure evolved in which African American girls perpetually occupied a low-status position.
While Black women "empower themselves by creating self-definitions and self-valuations that enable them to establish positive multiple images, and repel negative, controlling representations of Black woman" (Taylor, 1998, p. 234-235), African American girls are still affected by representations of womanhood, Blackness, and their combination. Consequently, "the intersectional experience is greater than the sum of racism and sexism, any analysis that does not take intersectionality into account cannot sufficiently address the particular manner in which Black women are subordinated" (Crenshaw, 2000, p. 209). Black women's survival has depended on creating a multidimensional life with various dimensions of the self to confront multiple, intersecting oppressions. The emergent representations of the Black female self, however, remain filtered through racist and sexist social institutions, such as schools and the media. Few individuals, including African American girls, are explicitly taught the meanings of these images because "the controlling images...are so pervasive that even though the images themselves change in the popular imagination, Black women's portrayal as the Other persists" (Collins, 2000, p. 88).

Standards of beauty continue to otherize Black females. Collins (2000) explains how blue-eyed, blonde, and thin White women continue to epitomize what is beautiful, desirable, and important. Adopted by the majority of women and men in society, these standards prevail. Collins argues that, "regardless of any individual woman's subjective reality, this is the system of ideas that she encounters. Because controlling images are hegemonic and taken for granted, they become virtually impossible to escape" (p. 90). At the same time, Hill (2002) finds that most African Americans gauge an African American woman's attractiveness according to her skin color. The same standard is not used for men. How such actions shape the contours of Black femaleness and inform the girls' relationships in real and virtual contexts remains narrowly understood.

As the digital divide purportedly becomes a distant memory, questions remain as to how African American girls integrate their racialized-genderized lived experiences into their developing technological consciousness. How do self-perceptions as African American girls emerge in the virtual world technology creates? To what extent do they import their real-time racialized-gendered peer behaviors and self-perceptions from a world into a virtual space? In an attempt to address these issues, I conducted a comparative analysis of two data sets.

**Methodology**

While assuming that "ethnography is both a process and a product" (Tedlock, 2000, p. 455), the methodological techniques I employed required me to traverse several boundaries, negotiate relations with the participants, and modify my procedures accordingly (Morse & Richards, 2002; Wolcott, 2001). Fundamental ethnographic procedures, observations, interviews, and focus groups allowed me to capture the emic perspective - how the girls make sense of their lives in school and while interacting with technology - and present a holistic story. Since context is "crucial to the documentation of human experience and organization of culture" (Lawrence-Lightfoot, 1997, p. 41), I paid particular attention to the sociopolitical dimensions of the settings. Indeed, Leafview's unique context and the girls' own position as African American females attending this failing district inform the girls' behaviors, beliefs, and self-perceptions in real-time and with technology. At the same time, the district's troubles and my own racialized-genderized self played significant roles in my gaining access.

During the 2001-2002 school year, I became the sole researcher who was allowed access to the state-operated school district called Leafview. Located in a Northeastern state, Leafview is considered to be an urban community. The majority of its 3,286 kindergarten through 12th grade students are categorized as African American (78%), followed by a growing percentage of Hispanic students (18%). Nestled within a county of 1.3 million where the larger White population (86%) remains segregated from its comparatively smaller Black counterparts (9.6%), Leafview is a small Black enclave with an average population of 17,300 residents of which 5,100 are under 18 years of age. During the past several years, the state education department has flagged the educational achievements of Leafview's students as not meeting minimal state standards. In 2001, the Commissioner of Education took over governance and appointed a new superintendent; dismantled the board of education; and authorized the state to takeover management of Leafview's six schools. In this relatively small district, there is one pre-school, three elementary schools, one junior high, and the high school. The junior high is physically connected to the high school, causing most of the residents and school officials to describe the two units as one-the High School.

In this predominantly African American district, academic success remains elusive for many students. With a high dropout rate, frequent teen pregnancies, and recurring incidents of gang violence, no more than one-half of the district's ninth-grade class continues on to the twelfth-grade. While these problems exist in the districts' middle and upper grades, the students attending the district's three elementary schools tend to experience high levels of success.

I was granted access to two of the three elementary schools. The process of gaining entry, however, was especially arduous. Since Leafview is a state-operated district often described in local and national papers in terms of its failures, gaining the participants' trust played a pivotal role in my study. I spent four months meeting with school and district administrators explaining my study, its purpose, and how it would benefit the district. Despite my sharing the same racial category as the majority of the participants, questions of my Black femaleness became an issue. Thanks to one of my graduate students, Mr. Daniel, who was Leafview's final board president before its dissolution by the state education department, I gained access. It was he who
convincing the two elementary school principals, community leaders, and many of the parents that my teaching, scholarship, and history as a social activist could be of benefit to the African American girls I was interested in studying. Since gaining access consumed more time than I had anticipated, I modified some of my original methodological procedures.

For the five remaining months of the 2001-2002 academic year, I observed and interviewed 58 African American sixth graders. I recorded in my field notes the girls' same- and cross-sex classroom interactions, as well as their verbal and nonverbal expressiveness displayed during these interactions. To gather as much data as possible before the conclusion of the year, I trained another female graduate student to also conduct classroom observations. Although I circulated between both of the two schools, this graduate student spent the majority of her time in only one of the two settings. I purposely made this decision upon realizing that the sixth grade teachers expressed higher levels of comfort with her than me. With three sixth grade classes between the two schools, we conducted observations in each class once a week.

In addition to our classroom observations, I also regularly attended an extracurricular event. One-half of the participants attended a school in which a girls' after-school empowerment group existed. As a result, I augmented my classroom observation visits and took note of the girls' interactions with others and how they presented themselves in this other context. While conducting classroom observations, I assumed the role of complete observer (Merriam, 1998) so as not to disturb classroom activities. However, during the empowerment meetings, the leader often called on me to participate. As a result, my role in this setting was that of participant-observer. My continued presence in both spaces, however, allowed me to establish a rapport with the participants and ultimately gain their trust. As a result, I had many informal interviews with the girls while entering and/or exiting their respective building.

Instead of the original plan to conduct individual interviews with each of the girls, time constraints forced me to organized focus groups instead. As a result, I used the focus groups to discuss salient issues drawn from the classroom and empowerment group observations (Krueger, 1994). Divided into groups of five to six students, I posed an identical set of semi-structured questions to each collective. I interviewed each group twice for no more than one hour during the girls' lunch period. Conversations were tape-recorded and then transcribed verbatim. Additionally, I trained three female graduate students to record the girls' nonverbal expressions during these meetings. The graduate students were also responsible for managing the equipment (e.g. the tape recorder) and other custodial tasks (e.g. serving the girls the lunch we ordered for them) which allowed me to focus on posing the open-ended questions, ensuring each group member participated, and monitoring the flow of the conversation. In the end, we collected nearly 500 pages of data.

At the conclusion of year one, Fisher (2003) conducted a case study with a subgroup of the participants from my study. Interested in how African American girls perceive grrl sites (websites that highlight girls' empowered voices) and software, she designed a one-week summer technology camp for the girls. Both Fisher and I encouraged all of the original 58 girls to participate. Written information about the camp was distributed to the girls during my final focus group, and it was provided to the twenty parents I interviewed. It was also given to the girls' teachers during their interviews. Additionally, Fisher met many of the parents when I conducted parent interviews in the school. At the conclusion of my exchanges with the parents, I explained the nature of Fisher's project and encouraged them to speak with her before leaving. All of the parents with whom I met expressed interest in the concept of the camp. They saw it as an opportunity for their daughters to expand their technological skills at a local university, free of charge. Despite these measures, only 22 of the original 58 girls attended the weeklong four-hour camp.

In an attempt to provide the girls an overall structure and institutional support, Fisher organized the camp as a Girl Scout E-Troop—that is, a troop with a focus on technology. However, unlike most troops, the girls met at my university and were able to access the university's technology. In addition to the facilities, the university permitted Fisher to use their Blackboard software system. Blackboard is an on-line course management system for educators at any level. This allowance greatly expanded the girls' technological experiences. It also required some formal instruction to occur. While collecting data, Fisher also provided the girls with rudimentary lessons necessary for her evaluation. Along with a female undergraduate student who served as the laboratory assistant, Fisher taught the girls how to create webpages and evaluate websites, create and manipulate digital pictures, gather information using the Internet, create and modify Word documents, and communicate in virtual space (e.g. in a chat room or on a bulletin board). As a result, Fisher served as a participant-observer during the technology meetings. Qualitative data included girls' comments on an electronic bulletin board specifically designed for the troop; journals recording impressions of the day's events; girls' personal webpages; and an on-line survey requesting the girls' evaluations of 58 grrl sites. In addition, Fisher conducted semi-structured individual interviews. The individual interviews were used to gain additional information and/or clarification concerning individual journal responses, message board discussions, and/or observed behaviors.

Initially, Fisher and I analyzed our data separately. For both studies, we applied a modified version of grounded theory (Straus & Corbin, 1998) involving line-by-line coding of the observation and interview data. As an inductive qualitative method, grounded theory allowed us "to constantly compare, to theoretically sample, to generate categories and properties and to discover the main concern of the participants." (Glaser, 1998, p. 98). In both studies, we made comparisons between what was observed and the girls' responses to questions posed during focus groups, individual interviews, and informal interviews. Upon further analysis
of our data, themes and patterns emerged. What became evident to me was the similarity between our identified themes. This recognition motivated me to conduct a more systematic analysis of our distinct data. Just as our individual work involved detecting patterns and themes, by comparing our field notes, focus group data, and transcribed interview notes I was able to search for similarities and differences. Ultimately, analysis for this study involved locating themes across and within texts.

"Closer Friends"

Despite, or perhaps because of, the publicized problems with Leafview, the sixth-grade girls took great pains to establish a female network. Dyadic or triadic groups are problematic in this peer culture. When one or two girls regularly separate from a cohort, and there are no more than three groups in a class of 15 girls, such acts elicit accusatory responses. For example, once Leisha realized that Janelia was spending less time with the group and sequestering herself with only one girl, Leisha asks, "You used to want to be my friend and all of us, but now you just want to go off with just her." The tears in Leisha's eyes accompanied by her furrowed brow reflect the seriousness of this situation. As Leisha and Janelia stand before the female cohort, Janelia fails to give a response and remains rooted in her spot waiting for acceptance. Her slow smile and mumbled words of, "I'm sorry," curry the group's grace. The next time I observe this same collective, they are all together, talking, moving, and playing.

Publicly confronting a girl about transgressions becomes the means to solve group conflict. The urgency of the matter depends upon its potential disruption to the group. When an individual seems to talk about boys and suggests spending time with one, the girls immediately confront the speaker informing her that she need not entertain such ideas. If a speaker introduces the possibility of having sex with a boy, even if it is said in the negative (e.g. "I'm not havin' no sex with him") this sets off another set of alarms. The group response becomes more assertive and confrontational with many members spontaneously accusing the speaker of compromising her morals. However, the most distressing incidents that require meetings prior to a verbal assault are when the group perceives a member physically disassociating from them. When this occurs, the group will plan to meet without the accused to discuss how they will approach the individual. The girls sometimes referred to this as "the council," and a subset of the group assigns roles. A spokesperson and a few witnesses to share their accounts are all that is necessary for the confrontation. However, the group expects all of its members to be present. In an attempt to resolve the issue as expeditiously as possible, the girls spend no more than one day planning the approach.

Friendship is an unparalleled notion among the girls. For the participants, friends could serve as saviors during the darkest moments. As Angel explains, "They'll encourage you and keep hope when you have lost hope." The majority of the girls identify female classmates as their true friends. Sharing a wide range of emotions with friends becomes normalized behavior in this setting. Hurt, anger, distrust, and jealousy are some of the sentiments the girls express in highly emotional ways. Even when group members and/or incidents cause an individual girl to cry, her tears are not taken as a sign of weakness. Rather, they signal to the group that a member needs their assistance. Importantly, many times the tears are a result of a girl confronting another about her aspirations.

Friends - as the girls refer to those belonging to their cohort - tell other friends the "truth 'bout themselves." Even when the truth may cause hurt feelings, the girls believe they are doing a great service to each other by "tellin' it like it is." Recorded during the girls' empowerment group, the following incident reflects this point.

*The girls crowd around the table. The adult leader has asked each to tell one person at the table something about themselves that they should work on. Many raise their hands to begin, but the leader chooses Juanita to initiate the discussion.*

Juanita: I want to say something to Danisha! I don't know what it is, but in class you always be messin' up like-

Danisha: What are you talkin' about? I know you not talkin' to me!

Juanita: Like I was sayin', it's like you be reading and get to a word you don't know and instead of asking one of us [the girls] to help you, you get this funny feelin' inside of you and start actin' up-

Danisha (with tears in her eyes): You don't know what I be goin' through! You have no right to say that about me! You don't know!"

At this point, Danisha runs out of the room crying and Juanita puts her head down on the table also crying. The other girls look at each other and quietly decide that one-half of them will follow Danisha who is now in the hall while the others sit with Juanita. I first go to Danisha who explains the following.
The most popular. One student claimed, "The best part computer together. Comments posted to each from multiple individuals girls do not person photographed to select the best image for her webpage facilitated instrumental in strengthening friendship bonds. Once the computer provided them with opportunities to control, manipulate, (2003) was presenting. This understanding motivates them throughout the entire week. Indeed, the girls want to be challenged with innovative activities. When review lessons appear, the girls do not allow sentiments of boredom to consume their time. Instead, they apply newly acquired skills to maintain a particular cultural climate, as well as their interests. Instead of following Fisher's directions, many of them find innovative ways to use the technology to their benefit.

Although they could not articulate a connection between gaining technological knowledge and broadening their academic skills, the girls believed that acquiring technological knowledge would benefit their career goals. (One student stated that, "Every doctor uses a computer!") At the same time, the girls quickly acknowledged the immediate social advantages of technology. The computer provided them with opportunities to control, manipulate, and even revise their lived experiences so that these technological contexts contain many of the same characteristics as their real-time culture. Their efforts, however, sometimes diverged from Fisher's (2003) intent.

Once the girls learn how to communicate without yelling across the computer lab, they take great pleasure using the computers to maintain a collective identity. In this context, friends are again important. The digital camera, for example, proves to be instrumental in strengthening friendship bonds. Taking pictures of each other, uploading the various images, and helping the person photographed to select the best image for her webpage facilitated the friendship process. It is important to note that the girls do not make this an opportunity to create dyads. Instead, they learn to work as a group. They solicit advice and assistance from multiple individuals in the picture selection process, and they learn to operate the camera and upload pictures on the computer together. Comments posted to each other on the virtual bulletin board reflect that this digital photography activity was the most popular. One student claimed, "The best part about today was taking pictures of each other. I think that we have the
When actual lessons occur, Fisher's (2003) lecturing does little to dissuade the girls from communicating with each other. Instant messaging (IMing) each other becomes a normalized behavior. It is in this virtual space that the girls "meet" and get to know each other. Since the majority of the instruction requires individual activities, the girls become quite adept at transforming these activities into group interactions. IMing each other to seek clarification on points presented in class by Fisher becomes one way to maintain the lines of group communication. The preferred virtual location for communication, however, was the chat room. In this context, the girls communicated with multiple members of their group. Blue's sentiments reflect the group consensus, "Today I had a great time because I got to meet everyone again like Tweety and Mist. I like that we can meet each other again and chat online." In essence, the girls use technology to claim ownership over this context. The technology allows the girls to demonstrate the high value communication represents in their culture-sharing group. Music holds an equally important role.

Playing music during the camp is a group activity. Even if individual girls play different songs, the music coalesced the group in various ways. First, for those girls not familiar with how to download music, others with the expertise happily taught all. Second, once every occupied computer was playing a song from what the girls considered to be the best hip-hop artists, group members continued communication with questions such as, "Where'd you find that?" and/or "What are you listening to?" After the second day of the camp, Fisher found that the girls could not concentrate on any of her instructions until each individual girl's computer was properly playing a song.

"I Don't Think Bush Should've Gotten It"

The girls are acutely aware that the media and the surrounding districts imagine them and their district as hopeless failures. Despite this realization, the girls define themselves as autonomous individuals who can overcome all odds. Integral to this thinking is constructing a multifaceted self-image. That is, when asked about future goals, few limit their response to exclusively articulating career plans. Instead, the girls discuss their college, family, and career plans. Some girls even venture to provide a sequence of events. One student stated, "I'm going to be a professional dancer and my first choice is to go to Yale. I want a husband and five kids because I love children. And you know when I want to do all of this? Not until I am 25!" This I-can-have-it-all attitude becomes pervasive in their peer culture. With one eye on the future, some girls turn the other eye on the politics shaping their present lived experiences.

One of the most surprising findings for me is the girls' political acuity. As eleven- and twelve-year olds, the majority understands the basic premises of a bipartisan system and are quick to articulate their party affiliation. With at least six more years until they reach voting age, the girls enjoy discussing political issues within their network. Raina is particularly politically aware and she often initiates political conversations among her peers. During one focus group, she expresses the following about the 2000 presidential election, "I wanted Gore to win. I don't think Bush should've gotten it. That wasn't fair, but then again with everything that Clinton did with Monica I can't really say I'm a Democrat." Raina's friends demonstrate respect for her opinion. Indeed, they enjoy listening to her rants about the political system claiming to "learn a lot" from her. Raina's unique political self does not threaten the female network. Although she knows more about national politics than most of her classmates or friends, she is not a rival. Indeed, competition seems not to be a part of this peer collective.

If a girl demonstrates a self that is academically astute, her scholastic achievements are celebrated among the peers. Public praise, however, is not given at the expense of another. In the school that hosts the empowerment group, inspectors condemned one-half of the building. This decision forces the principal to crowd two of the three sixth-grade classes into one room. In spite of this physical inconvenience - which also resulted in the destruction of the playground, elimination of physical education, and moving classrooms to the gymnasium - two sixth-grade girls' academic achievements shine. With the help of student input, the principal selects Julia, and then later also includes Corrine, as the graduating sixth-grade class' valedictorians. Before the public announcement of Julia's position, her classmates proudly applaud both girls' achievements during the focus group. During an informal interview, Julia demands I not inform Corinne that she was the second valedictorian, "She is my best friend and I don't want her to feel bad about me. It's like, so what, we are both smart, but I don't want her to feel bad." Interestingly, although Julia's friends know about her honor none of them inform Corinne. Social acceptance and maintaining a connectedness with each other is more important than flaunting one's individual talents.

The girls' dreams and aspirations do not outweigh Leafview's problems. As African American girls in a publicly failing district, the girls understand their district's deficiencies. They are quick to demonstrate a keen understanding that the media paints a biased view of them and their environment. To a great extent, they identify the disproportionate news articles about negative incidents connected to African Americans as a byproduct of living in a racist society. In summarizing how they believe the media portrays them and their lack of accomplishments, Shante posed a rhetorical question, "Why they keep callin' us niggers?" Feelings of distrust and anger permeate much of the conversations about their public image. During such discussions, the girls demonstrate an extremely impressive dimension of their developing consciousness and their self-development. Instead of describing themselves as victims of the negative media attention, they assume a more empowered persona-that of critical observer.
Complaints about the media coverage also include comments and pointed suggestions about how to improve the district. Repeatedly, the girls provide examples on how the media "use" them to continue promoting the image of Leafview's despair. The following statement from Isolda is one of many examples demonstrating how the girls develop a political awareness of the media. She states, "They always be talking about the bad in Leafview...one reporter came in and asked me a whole lot of questions about what I thought and I took him around the school and all and yeah I said that bathrooms need to be cleaned up but I talked about a lot of stuff, like about the dance troupe going to Africa, the awards some of the kids get, the valedictorians, and the next morning the whole story was about the bathrooms."  

Very few of the girls abandon their dreams even though their understanding of possible structural constraints increases as the year continues. Often their comments reflect how they perceive their race and gender as barriers to success. As Beth points out concerning her aspirations to become the nation's president or a judge, "I want to be a president and they [White people] don't want a woman to be a president or Black person. And as for a judge, they don't want me to speak my mind. They don't want a Black girl like me to judge a trial." She continues saying, however, "That's not gonna stop me, however. I plan to go to Howard's Law School!"

Preparing one's self for future goals also includes physical preparation. Like so many eleven- and twelve-year old girls, appearance is important for the Leafview participants. The majority of the girls admit to participating in some form of sports activity offered in their communities. Basketball and football (for some students) are popular. Another fashionable and physically demanding activity is dance. Only a few girls belong to the prestigious community dance troupe that organizes yearly trips to Africa. Many of the girls wish to belong but do not for various reasons (i.e. time constraints, money, lack of transportation). For those who cannot participate in the troupe, they still root as audience members for their "luckier" friends.

As with any culture-sharing group, some individuals are less liked than others. Regardless of the specific reasons for these sentiments, the collective still embraces the individual for her talents. To my surprise, the least-popular girl was often elected to hold influential posts. For example, when selecting a person to organize their teacher's surprise birthday party, the majority votes for Danisha. When asked about their decision, individual girls explain that despite her "loud talk and actin' all wrong sometimes" she knows how to organize. A budding perfectionist, Danisha arranges a classroom party with dancers (inviting some of the girls involved in the community troupe), full classroom decorations, music, and gifts. A marginal student who has already been retained once in her elementary career, Danisha receives many kudos from her classmates about the "slammin' party" she organizes.

For the girls, they also learn to use the computer as a tool by which they can express, and in some instances re-create, their multifaceted developing selves. When the girls create their webpages, the majority includes information that concerns a multitude of interests and activities in which they engage. As Lime's webpage illustrates, the girls include information about their aspirations in addition to their current doings: "Welcome to Lime's Website. I like traveling around the world with my family and friends. I also like playing basketball, swimming, dancing, and going to the movies and the mall with my friends. When I grow up I would like to be an orthodontist."

Although typing statements on the computer may seem like a rudimentary skill, for many of the girls this was their first time doing so. Locating the appropriate key to present one's self was seen as a stepping-stone to the more challenging task of learning how to present the information on their personal websites. Both activities seem to be pleasurable for the girls. They enjoy seeing their words - whether they are spelled correctly or not - appear on the screen. Giggles of delight are often heard over the music. Even more pleasurable is learning how to change the briefly written text's font, color, background, and images surrounding the text. Statements such as, "I did that!" echo throughout the room. This sense of prideful ownership seems to develop as the girls' technological knowledge increases. They find pride not in mastering the keyboard and writing more thoughtful accounts at a faster pace, rather they find satisfaction in manipulating the brief statements into a presentation style they believe "looks good." Emphasizing the text's aesthetic quality instead of its content also reoccurs during more thought-provoking technology activities.

Even when Fisher (2003) asks the girls to evaluate websites, their responses remain void of lengthy, analytical statements. Like the text for their webpages, the girls focus their energy on changing their evaluative comments' font color, size, and shape. This is "fun" for the girls because creating (and reading lengthy) text is too closely related to schoolwork in their minds. Their aversion to using technology as an academic tool to record critical comments, does not mean they lack critical thought. As their technological skills advance, they use computers to convey their critical thinking in more dynamic ways than protracted text allows.

Once the girls select and upload pictures of themselves, they also learn how to digitally manipulate the images in the computer. Options include changing one's hair color, length, and style. Other options include changing the lightness and darkness of an
individual's complexion, and changing the color of a girl's outfit, as well as changing a girl's body size. Surprisingly, all of the girls lengthen their digital hair. Even those girls whose hair is rather long extend their digital hair far past its real-time length. Most girls include braids to accomplish this feat, even if they already have braids in the picture. None of the girls change their hair color. In addition, many of the girls make their complexion lighter that it is in real-time. Even if the change creates an unnatural hue, they argue that, "I think I look better like that." Finally, a few of the girls make themselves seem thinner in the digital picture. Reducing their waist, arms, and legs is also a way to "look good" on their pages. Paradoxically, one of the most popular grrrl games for this group was "Feed the Model." In an effort to inform girls about the dangers of anorexia and bulimia, an emaciated White female image floats across the screen. The object of the game is to throw pieces of food at her mouth causing the model to gain what the player believes is an acceptable weight. Included in the game are pages of written text about eating disorders. Most of the girls avoided reading the information in order to restart the game.

While academic and informational texts are of little interest to the girls, importing language behaviors from their real-time conversations and putting them in text messages becomes a sort of game. Knowing that Fisher sees their comments does little to dissuade the girls from finding new ways to manipulate computer talk. Since this is the first time most of the girls can communicate in the virtual world, they take great pains to create a culturally unique language that maintains their identity. Irrespective of academic prowess, all girls participate in this language construction. One of the school's valedictorians during a chat room session inserts her Jamaican self in the conversation and writes, "Mi a chat Jamaican." A respondent encourages Aniah's expressiveness using her own coded language, "U GO ANIAH IM REALLY FEELIN U FAM. U GO AHEAD & SPEAK OUT." Words such as "everything" become "erthang" and inquiring about a girl's well-being is written "How u b."

Discussion

Fisher's (2003) findings of the girls' behaviors during the technology camp are admittedly slim in comparison to mine. The amount of time we both spent with the girls explains the difference. More work needs to be done for an extended period of time to examine how this group interacts with technology. It would also have been helpful if all the individuals from the original set of girls participated in the study. Despite these issues, what the girls import from their real-time peer cultures sheds light on their understanding of Black femaleness and how technology can assist or disturb their developing consciousness. In real-time, group conflict is an affront to the entire group and members seek relative harmony quickly. Similar to the working-class African American girls in Goodwin's (1990) study, the Leafview girls also actively confront each other, using elaborate language behaviors to approach an accused individual. The collectivity plays a prominent role in creating a peer structure that allows for open communication, individuality, and empowerment. In the virtual world computers afford, these features assume a slightly different look.

Typically, technology encourages individual work rather than collaboration. However, the Leafview sixth-grade girls find unique ways to collaborate with each other. Some literature indicates that girls prefer to use technology as a communicative tool over boys (Colley & Comber, 2003). Data from this study supports this observation. The Leafview girls learn to cobble together various technological elements (IM, music, chat rooms, and the bulletin board) simultaneously to encourage communication and maintain a group connectedness. Learning to operate and manipulate technology is a characteristic typically reserved to describe boys and computers. Instead, the Leafview girls assume these behavior traits in an effort to create space for their valued Black female network.

In the technological context, the multifaceted Black female self creates a location to voice the diverse angles of her self. The standpoint of the girls, with all of their complexities and critiques, are first noted in real-time. The hope-filled but realistic attitudes further shape the contours of the culture sharing real-time group. As the onslaught of sociopolitical critiques attack their consciousness, they still maintain high motivation to succeed. Much like the students in O'Connor's (1997) study, the Leafview girls use the public perceptions of their deficiencies to continue their struggle. Whether they maintain these dispositions depends on if the girls continue to be "privy to social behavior and discourses that affirm[ed] the need to struggle and its potential to produce desired change" (p. 622). In my longitudinal study, I am exploring how their aspirations change over time, place, and in response to particular observed behaviors and discourses.

Basketball player, dancer, party organizer, and/or prospective judge, the peer culture embraces all. The "multiple ingredients" Lorde (1984) describes as constituting Black female identity is evidently nurtured among the girls. The peer group publicly praises the individual and her distinct talents, even if she may possess very few. Similar to Horvat and Lewis' (2003) study, the Leafview groups find peers who admire their social and/or academic abilities while still maintaining a strong Black female identity. In such an empowered environment, I assumed the girls would celebrate Black femaleness for better or worse. Data from the technology camp challenge my naiveté.

As the girls manage to control the technology in ways that seem to promote safe spaces, they also seem to be controlled by anti-Black-female images. An interesting tension evolves. The technology becomes a means to express and modify the self. This could be seen as empowering in its own right, yet changing their body images reflects a failed attempt to struggle against
Recent research does suggest, however, many African American women resist mainstream beauty standards and value their aesthetic (Chin Evans & McConnell, 2003). In addition, Makkar and Strube (1995) indicate for African American women who have high self-esteem or nurture their self-consciousness as Black women, exposure to the White beauty standard does not lower their self-perception. Perhaps part of the Leafview girls' journey to self-definition is learning how to critique and reject the controlling images of beauty. Nevertheless, studies are demonstrating that with continued exposure to the beauty standard, more African American girls and women are developing eating disorders than previously assumed (Cachelin et al., 2000; Williamson, 1998). More work needs to be done in this area of eating disorders and how they may appear at different times and among various contexts for African American girls. In my longitudinal study of the girls, how they construct perceptions of their body image over time is one focus. What can be said at this point, however, is that parents and educators of African American girls need to heighten their sensitivity to what the girls view and how they evaluate these representations, and critical discussion of the images should be encouraged. Stated differently, the Leafview girls need more guidance as they progress through their trajectories of self-definition. Technology could be a powerful tool for the journey. Unfortunately, the technological choices for African American girls do little of this emancipatory work.

The girls' relationship with technology provides further troubling possibilities. Their avoidance of reading both academic and/or informational text is not commiserate with their need to create text. Notwithstanding this observation, efforts to create and maintain their own language in virtual space are noteworthy. These girls activate their empowered selves to do what many adolescent chat room users do - innovatively changing the rules of literacy through technology (Merchant, 2001). For these girls, their age, race, and gender inform this process of self-definition. At the same time, their voice - both verbal and nonverbal expressiveness - is often inconsistent. High aspirations alone do not guarantee success. Many African American students have high aspirations that do not correlate with their academic effort or achievement (Cokely, 2003; Ogbu, 2003). In the technology camp, the girls are not demonstrating the necessary behaviors to attain many of their goals. The girls' refusal to write lengthy, critical statements in spite of having a clear ability to verbalize critical thought suggests that they fail to see technology's intellectual benefits. This lack of connection may be a result of their district's status. All lessons learned in the technology camp remain in isolation from their school curriculum. Without computers and personnel to reinforce the summer activities, the skills hold little intellectual or academic merit. The social benefits far outweigh the intellectual advantages.

For the girls, technology is a useful tool to express one's self in a multitude of ways. Technology provides the girls a similar level of social control, as manifested in their peer interactions. As a consequence, educators and administrators may do well to recognize the salient role technology can play in the social development of African American girls. Interactive lessons, working in teams, and culturally relevant software that links academics with the social development of African American girls need to become integral parts of classroom technology. This may require that instructors use computers as the hook to increasing girls' intellectual capabilities - that is, seamlessly including activities that are "fun" and seemingly nonacademic when in reality they can serve an academic or otherwise practical purpose. However, this may be difficult to accomplish in districts like Leafview, since the more African American students within a district, the fewer computers the district typically possess (Hess & Leal, 2001). Thus, universities may want to work with under-resourced districts to provide sustained and culturally meaningful opportunities for students.

Data from this study can direct educational scholars and practitioners to expand their vision of technology and its use in low-income, African American students' lives, however more thought needs to be given to how technology can further coalesce positive peer interactions. It is insufficient to merely introduce more computers into low-income districts such as Leafview, without using them in collaboration with positive cultural norms and mores that already promote success. This requires, however, that scholars expend more energy identifying behaviors that encourage accomplishments among low-income urban students. Too often, research focuses on the acts and interactions that nurture the oppositional behavior Ogbu (1989, 1990) and Fordham (1998, 1996) detail. A more complex approach that is sensitive to the effects of gender, social class, region, and other features that signify particular social meanings, may illuminate some of the dispositions that are associated with success, but are rarely affiliated with low-income African American populations.

Once software designers recognize the potentiality of the African American girl audience, they need to consider these technology-users along race, gender, and social class divisions. More attention needs to be paid to what the girls need, want, and already possess as African American females navigating the hierarchical system of our society. Software designers need to create a dialogical space in which African American girls can continue the self-defining process integral to their development. Why not create software shaped by Black feminist pedagogy? Such software could "raise the political consciousness by introducing a worldview with an Afrocentric orientation to reality, and the inclusion of gender and patriarchy as central to an understanding of all historical phenomena...Black feminist pedagogy embodies a philosophy that is a philosophy of liberation" (Joseph, 1995, p. 465). Software that embodies this radical construct may be more appealing to African American girls and encourage them to read about eating disorders rather than merely "Feed[ing] the Model." At the least, Black feminist software should aim to teach all girls - Black girls in particular - how to detect and challenge the hegemonic attempts that otherize Black girls against a backdrop of White female beauty. Encouraging girls to define themselves in a multitude of ways other than
gauging their proximity to the standard of beauty needs to be at the core of Black Feminist grrrl software.

In the end, the girls are an extraordinary group. Their behaviors and beliefs demonstrate many of the concepts presented by Black Feminist theorists about Black women. That their developing consciousnesses are acutely aware of societal barriers is part of the journey. However, they seem to accept the potential impediments without much fanfare. What seems to be another equally potent barrier is the social influence of beauty for the Black female. Technology plays a pivotal role in their lives. While empowering, unless modifications are made, it may also prove to be another debilitative tool attempting to prevent holistic African American female self-development.

References


systems. Social Science Quarterly, 82(4), 765-778.


Endnotes

1 - The study was conducted by Fisher (2003).

2 - All names have been changed.

3 - In addition to these procedures, I also individually interviewed the girls’ sixth-grade teachers. Semi-structured questions involved the teachers providing their assessment of the students’ current academic achievement and prognosis. I also interviewed a portion of the girls’ parents. All participants, students, teachers, and parents completed a survey assessing the girls’ social skills. For the purposes of this article, however, I only include data drawn from the observations and focus group interviews. See Scott (2003) for more details on other procedures.

4 - See Scott, Avolin, & McVea (2003) for further discussion.

5 - Ironically, I included this quote verbatim in an article that appeared in one of the "guilty" newspapers.

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