

Sample “B” paper for EDUC 260

Is it possible to bridge the digital divide for Black students in the USA?
How schools and the Black community are ill equipped to bridge the digital divide.

Is it really possible to bridge the digital divide for today’s young Black student in The USA? There is currently in US schools a great push to create computer access for all students (Healy 1998). The president who wants all US schools hooked up to the Internet confirms this sentiment. So with all this attention it is hard to believe that there are students not gaining from the current technical revolution. Like other facets of our society and schools, divisions are being made on the basis of race and socioeconomic class. Instead of creating more equality, computer use in schools appears to be compounding existing inequities. Computers also are creating a two-tiered system of have and have-nots for students. Those who have computers at home and those who don’t, this makes a big difference in their performance in school (Hoffman and Novack 2000). Blacks simply don’t have much home computer use . Drawing on many researchers I have come to the conclusion that the digital divide cannot simply be solved by adding more computers but a larger overhaul of the whole educational system is necessary including how and what we teach.

First, I think that it is imperative to understand the two-opposed views on technology prior to entering my personal arguments about equity. The two clear concepts or directions that predict the way that current computer trends are heading are best explained by Bosah Ebo in his book *Cyberghetto or Cybertopia*. He argues that there are two camps in the technological revolution, those who believe in the Cybertopia and those who believe that the new technology is creating a Cyberghetto. For Ebo, the proponents of Cybertopia think the Internet “..de-emphasizes hierarchical political associations, degrading gender roles and ethnic designations, and rigid categories of class relationships found in traditional, visually based and geographically bound communities.” (Ebo 1998). Regarding education, the example provided by the Cybertopia-ists is the ability of the Internet to provide distance education to those for whom school is physically inaccessible. They also propose that the gaps caused by socioeconomic forces will be alleviated by market forces that will lower prices of P.C.’s, and community efforts will equalize access by providing public access to computers. Those who believe in the Cyberghetto paint a very different picture. They believe that

...virtual communities are just another dimension of traditional communal relationships with the same built-in biases of race, class and gender. Visual identities may be de-emphasized on the Internet to some extent, but the same codes of conduct moderate social relationships in the medium. (Ebo1998)

In addition, they argue that technology designers and programmers are from the elite culture, and their biases are contained in their work. This means that the perspectives and norms that will be used will be predominantly male and white, this however is not what our society looks like. In order to address a problem like this more people of colour, as well as more women, need to be involved in all aspects of computer design and programming. In response to the argument that communities will be able to equalize through their own development, they maintain that smaller rural areas cannot afford to purchase computers for public use. The Cyberghetto-ists point out that socioeconomics determine the quality of computers and technological options in schools.

There is a middle ground that takes into account some arguments from both the Cyberghetto and the Cybertopia, however Edo's analysis allows us to see all the arguments clearly without the grey. For me, both arguments have potential but the current data suggests that the Cyberghetto is where Black students are headed.

Currently in schools, the access to computers is not yet universal, nor is the quality of software and instruction standardized. One study of the status of technology in the U.S. classroom found that "students attending poor and high-minority schools have less access to most types of technology than students attending other schools" (Coley, R. Crader, J & Engle, P 1997). The cost to make all classrooms "technology rich" would be 300 dollars a student or 15 million dollars, this is five times what is being spent now but only constitutes 5% of total education spending (Hoffman and Novack, 2000). Overall this does seem like a small price to pay to begin the equalization process.

What is perpetuating the lower quality of education currently being offered to Black students using computers? First, there exists in schools a system that perpetuates the marginalization of some Black students. Examples of this include students who are granted access as a reward for completing other classroom work, which allows students who are having trouble with existing curriculum little time to explore computers within the classroom. A teacher is quoted admitting that

"Being that (there's) only one computer there, I use it as a reward...so I think it...made it easier to control some...not control but to use it as a reward for those kids who are on tasks and complete their work."
(Schofield, 2000)

The work of Schofield shows how teachers use the computer as a carrot to manipulate student behavior, therefore creating unequal access for those who may be capable, but not

so quick at their work. The Internet and computers are made into a privilege, and not every student's right. Many teachers see computers, as a tool for enrichment, not core curriculum (Schofield 2000).

According to Schofield, only 4% of classes that were lower achieving used computers in her study. This is attributed to the fact that higher achieving students are seen as easier to manage and teach, so computers are most often used by them. This creates an even deeper divide: "stronger students' greater access to the Internet had the potential to increase any pre-existing motivational differences between them and their academically weaker peers since there was widespread agreement that Internet use was motivating." (Schofield, 2000). When students are granted access, they are enthusiastic about their use. The gap in use disappears when Blacks have access, in some cases Blacks use computers twice as often as Whites (in fourth grade study by R. Coley, J. Crader and P. Engel 1997).

Students who have access at home are granted more time on school computers (Robinson, 1997). Students with home access have previous knowledge of how to operate computers, and are already familiar with them, therefore needing less instruction from teachers. Home computer importance is compounded because it is this exposure that determines time allotted, and proficiency of students' use in schools. Of students that have computers at home, 73% were White compared to 39% of Black students (Hoffman & Novack 2000). This disparity also exists when adjustments were made for household income: the lower the income, the larger the gap (Hoffman & Novack 2000). This proves that students are not being granted equal access, if determined by home usage. There is little discrepancy between Black and White students regarding performance and how often and how recently they used computers (Hoffman and Novack 2000 and J. Schofield 2000). There are no comprehension problems for Black students regarding technology, the key issue for Black students is **access**. Black students are the most dependent group on school and community access, and this dependency is not improving over time (Hoffman and Novack 2000).

Even with an equal level of access in schools, what and how Black students are taught is furthering the gaps between students. Robinson suggests that without understanding the language of computing, people will struggle to communicate with the rest of society. She further explains how this works in a classroom:

The low-SES children, who are disproportionately African American and Hispanic, were gaining most of their experience with a computer when it was in control, asking questions, expecting a response, and informing the student when he or she was correct. In contrast, the high-SES students, who are disproportionately White, were gaining considerable experience when they were in control, giving the computer a series of instructions,

and observing the consequences of these instructions. (Sutton 1991, in Robinson)

Minority students with low socioeconomic status are 3 times as likely to be using Drill and Practice software as opposed to students in with a higher socioeconomic status who where learning computer programming (Becker 1983, 1985). Devillar and Faltis (have looked at the type of uses of computers within the classroom, concluding that students who may benefit from computer use to augment them, are using mostly drill and practice software that does not address the students' needs. While there is some controversy on the practical effects of drill and practice software, I believe that overall it seems to offer minimal benefit to the student, when software exists that could address there needs more effectively.

Teacher training in computer use has also been found by Robinson (1997) to be correlated to race. This means that teachers who have better training are more likely to be able to integrate computer use better into their classrooms making the experience more enriching for their students. Robinson (1997) also found the higher the ratio of minorities in a school the less likely they are to be using computers, in any way. Becker found that teachers were 3% less likely in minority SES areas to be “exemplary” (in computer knowledge), this is a third lower than the average. In addition only 15% of US teachers reported having 9hs+ of training for computers in 1994 (Coley, Crader and Engle, 1997). This as the norm seems grossly unacceptable. This I believe this further compounds the problem of access, because those students who are able to have computers do not have teachers who are necessarily trained well enough to get their full potential realized.

It is difficult to look at computer use in the schools while ignoring computer use at home (or other location), because proficiency in the classroom is influenced by home access. I am not however asserting that all students need computers in the classroom and at home, but I do believe that students need more than the time allotted in schools to explore the possibilities of the Internet, and computers in general. This I think would be best done through the community. In the Evolution of the Digital Divide, Hoffman and Novack constantly point out the high numbers of Blacks using computers at “other” locations (not school, work or home). It is this use of community based computers that is motivating interested Blacks onto computers. Blacks lag behind Whites in computer ownership and connection to the internet, especially in the lower classes (Hoffman and Novack 2000). If students are going improve there skills and make purchasing a computer for the home they must first have community access to explore the possibilities of this new technology. Programs like community technology centers currently in the US, I believe are great examples of true movement towards equity. These centers are placed in

disadvantaged neighborhoods with high poverty and provide basic instruction for adults and children, workplace development, after school classes for kids and continuing education programs (ED tech programs, US gov't).

The problem of equity and computer use in the schools is a problem that has no easy answers, however unlike other issues this one has the potential to cost the educational system millions of dollars that might be better invested in other areas. More important than that is the experiment that today's youth are being subjected too. Schools do not have universal guidelines for computer use and I believe that some students particularly Black students are not getting the education they deserve. Until our children can be educated in equity without computer use I think that computers serve to further the gaps that currently exist in our school system. In order to close these gaps educators and administrators have to concentrate on creating meaningful education for all students. In the meantime Black parents I believe need to familiarize themselves with computers, so that they may be able to help their children catch up. As well parents if they cannot afford a home computer, need to locate computers in the community that their children can have access to, so that they can gain some ground and be more prepared for computer use in the classroom. Students need to be able to understand and fully comprehend the language and use of computers in order to bridge some of the divide. Robinson clearly states this by saying "Access to technology..is not just having access physically to a computer in school or teachers who have the ability to integrate computers as a tool into the curriculum, it also exists on the level of information access and processing or cognition" (1997).

There is a long road ahead to bridge the digital divide however I believe that with dedicated educators, community members and parents support it can be done.

(* References excluded by instructor *)

Instructor Comments

OVERALL COMMENTS:

You've chosen an important issue, and your position on it is fairly clear. You are at your best when you make specific recommendations about what you would like to see happen in low-SES schools and communities, for instance more training for teachers and more community computing centres in these areas. (By the way, did you read the news in Wired about Microsoft giving millions to boys and girls clubs to open and staff these sorts of centres?) You have also done a decent job of gathering evidence to support your position, though I think in some places you over-interpret the statistical evidence. (For example, does it matter so much that teachers in low-SES areas are 3% less likely to be "exemplary" computer-using teachers? 3% is a very small number!)

Your grade would have been better if you had held your argument together to the end of the paper. In the last half page you lose your focus and throw in some small points which you do not have space to develop fully. One of these actually detracts from your main argument. In particular, you bring up the stance that using computers in the classroom is really just a grand experiment. You make it sound as though you believe this; but if so, why is it a problem that Black students are not being "experimented" on?

Overall this is a strong effort, weakened only by a loss of focus at the end, and some poor grammar. (In the future, you need to make a serious effort not to mix up "there" and "their"!)

OVERALL GRADE: 42/50 = 84% (B)

BREAKDOWN OF GRADE:

Description of the issue and the various perspectives held (20%): 10

Presentation of your position on the issue (34%): 14

Effective use of references to support your position (24%): 11

Closing summary of your argument (10%): 2

Overall clarity of presentation and effective use of English (12%): 5