The age factor of digital divide

Ricardo Estrada
Course: Tech Tutors
Instructors: Bobbi Long

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What is the digital divide?

The digital divide today is the gap between people with effective access to digital and information technology and people who have limited or no access at all. It includes the imbalance both in physical access to technology and the resources and skills needed to effectively participate as a digital citizen.

Kinds of digital divide?

Economics: The divide may separate people due to the economic situation that they live in or were born into, which means that people may not have the financial ability to have access to information technology. Due to the economic situation that an individual may be in, they may not have the same access to information technology that someone who has a better financial condition. A person who comes from a much poorer economic situation may have to share the available resources with others and therefore reducing the amount of access he/she has to that information.

Culture: Depending on a person’s culture, they may find that access to information may not be as important as it is to us. It may not be important because that access may not be there and the individual has not been exposed to it or has not found a use for it. In Western countries the access to information technology is much more prevalent than in poorer countries whose culture has not been exposed to the technology. It is important that other countries recognize the need to increase the technological background of its people to better compete in world markets (Nleya, 1998).

Gender: Often depending on gender, people may be denied access to information technology because certain genders are often influenced to be interested towards subjects related to their gender. Even though access to information may be equal for both genders, research shows how women and girls are systematically steered away from these fields beginning as early as elementary school through school culture, classroom climate, traditional gender roles, and other societal pressures. (Gorski, 2001)

Age: Sometimes older people are not interested in new technology while the younger people will most often be; this creates a gap between them. The gaming industry makes a lot of money by marketing to the young, meanwhile, the elderly have more assets and disposable income than
their younger counterparts, and the IT industry is aimed squarely away from this ever-increasing group of consumers (McMurtrey et al, 2008).

**Introduction**

This paper is going to look at the age aspect of the digital divide. I chose this topic because of what I have experienced during my tech tutor service at George Marshall Elementary school. After observing the use of technology at the school, it is obvious that technology will play a vital role in learning and the future of those young students. However, the staff has very little knowledge on the usage and maintenance of the technology they are using. It is because they don’t know how to use it and have received little to no training. This is a clear example of the age factor of digital divide. These students will need to have a good understanding and plenty of exposure to information technology as they grow up because that is the direction that our society is heading. The goal is to address the age gap and why this gap needs to be equalized for both young and old.

**Young and Old**

Since the inception of the computer, the term "digital divide" has and will always be present. There are various kinds of digital divide that equate to either having access or not having access to information technology. Those who have access to technology seem to prosper more than those who have little to none. If we take a look at Western cultures that have access to technology, we see that they are richer while poorer countries that have little to no access to it are still poor and unable to compete technologically in world markets. Throughout the course of history, one group (or more) has had better access to computer and information technology than another faction. For example: rich versus poor, young versus old, advanced societies versus less developed countries, etc (McMurtrey et al, 2008).

The elderly population among us continues to represent an increasing proportion of the United States, as well as worldwide, residents. It is estimated that almost 30% of American citizens are over the age of 50 (U.S. Census Bureau, 2006) and by the year 2030, one in five Americans (70 million) will be over 65 (U.S. Census Bureau, 2004). Seniors citizens are one of the neglected demographics that have more assets and disposable income with which to spend on computers and information technology (IT) than any other single group in the United States.
It is estimated that seniors would both spend more on information technology and use it more often, if they could overcome the many obstacles and issues associated with effectively implementing these technology tools in a senior setting (McMurtrey et al, 2008).

Seniors are missing out on opportunities to use information technology in ways that could empower them to directly improve their quality of life and become more independent. It’s not as if they retire and not do anything for the rest of their time. Yet, the video game industry's total sales as of 2005 rose to an all time high of $10.5 billion. These are astonishing numbers in sales only targeted at younger audience through video games, hardware and accessories. Seniors were left out of the information technology bandwagon and this only adds to the gap between them and their younger counterparts. If video game industries apportioned some attention and sales towards senior citizens, they would see an increase in sales for them and senior citizens would have much more opportunities at improving their way of life and remaining independent yet connected with the rest of us. This would help in narrowing that age factor of the digital divide.

Addressing both young and old

After much research into the age factor of digital divide, addressing the gap between young and old may not be so hard. Botelle Elementary School from Norfolk, CT has found a great way to address the gap between young and old. It has established a program in which fifth- and sixth-grade students act as tutors to adults wanting to acquire basic computer skills. The program is spread over a one-hour session per week for a total of five weeks. This program introduces adults to the Apple computer and the use of AppleWorks and The Print Shop. During the five week sessions, the young tutors will cover Basic parts of machine, review of the machine, review technical aspects of the word processor, and the remaining sessions are devoted to using the word processor and database and to learning about them in more detail.

This is a clear example of how young and old benefit from using technology to teach and learn various computer skills. The adults see the program as a chance to learn something new and exciting while the students develop a sense of responsibility and are able to improve their communications and inter-personal skills (Day, 1998). Even the school benefits by building a strong base of support in the community, especially among those who would not normally have contact with the school, and by being able to demonstrate the importance of computers to the educational system.
The adults who participate in this program see it as an opportunity to do something new and exciting; keep in mind that most adults that participate have little to no knowledge about using computers. While adults benefit and learn the basic skills needed to use a computer, their gain is small compared to the children's. Educational leaders see it as an opportunity for students to develop a sense of responsibility by working on a one-to-one basis with people from outside the school. The Young student tutors take pride in their work and the feelings of achievement and success can be seen in the way they approach the other aspects of their school lives (Day, 1998).

The education leaders believe that by reaching out to the senior citizens and others who are not normally involved with the school, they are building a strong base of support in their community. It is the community that listened to the school's goals of merging technology with their curriculum and it is the community that pitched money together to purchase the computers. Now the school is a valuable resource for all of the people, not just young children, but also for a growing group of older people.

**Internationally**

Botswana revamped its National Policy on Education to prepare the country and its students for an industrial economy driven by information technology. This is a clear international example of how technology is being directed and implemented towards the young and old to improve an entire country and better compete in a world market. Computers are becoming more and more common in all aspects of life and this is because more jobs require applicants to be familiar with computers. As this technology achieves prevalence in everyday life and the workplace, the use of computers has gained in importance.

Their belief is that when computers are used in education, it encourages amongst the student’s problem solving, interpersonal, research and analytical skills (Nleya, 1998). This new education policy hopes to develop these skills by including a Computer Awareness program in all Community Junior Secondary Schools and tertiary institutions. The program is organized into a ten-year basic computer education curriculum that aims to provide students with basic computer knowledge and literacy. The schools plan is to eventually integrate computer awareness into other academic subjects. Since the instructors will also require training on education, it is obvious that both the student and the teachers will benefit greatly from this.
Botswana has seen the advantages and opportunities that information technology brings; this realization has allowed them to take the initial steps towards making that technology available to its young and old.

**Nationally**

A great example of technology being integrated in schools to influence both young and old can be found at the Berkshire school for young offenders in Cannan, NY. This school started out as a rundown school with an unmotivated staff and a constant supply of troubled children, who had the option to go to this school or go to jail. The Berkshire school had a lot on their plate when John Richman, (superintendent of the school), came into the picture. His goal was to revamp the physical layout of the school with a new design that would make learning fun and to integrate the curriculum with technology. The result was that both the physical layout of the school and the technology are modeled after the mall, where teens socialize and conform to a strict set of self-imposed rules (Richman, 1995). He got his idea from observing his son cooperating with another youth to complete a task while playing video games.

He believed that technology can be used the same way at the school in group problem-solving. The model is based on the assumption that young people will take advantage of technology if it is offered to them (Richman, 1995). Technology became part of the school's culture because of his new ideas towards the merging of education and technology. Just as the teachers from Botswana require training, the staff at Berkshire enjoys an in-house training center and technology assistant. It would be these teachers who not only directed the hands of the students onto the computers, cameras, monitors and digital equipment, but also had to enjoy using them personally as well.

With the smaller class sizes and the availability of computers in every classroom, students have demonstrated success and enthusiasm towards learning. First time students take a computer literacy class and learn how to work together in teams. The idea of working together in teams is to promote "cooperative learning", because as adults we work together on projects, and we want to prepare students for that kind of real-world experience (Digital Divide). The school has done so well that it received a designation by the U.S. Department of Education as a Blue Ribbon School of Excellence, citing leadership in curriculum and education.
Reflection

As a student, having access to information technology was never a problem. The concept about the digital divide in information technology never applied to me, or so I thought. I had no idea that this concern existed, yet it was always around me. Taking the service learning course has opened my eyes to a topic I was once blind to. The PBS “Digital Divide” movie made me realize that this was a very big problem, not only in my hometown but worldwide. I’ve witnessed first hand through my service learning, that this problem not only affects the students but also the teachers.

The one thing that has impressed me in the digital divide topic is the fact that when technology is introduced into the classrooms, there are always positive results. These schools completely turn their programs around and I think it is something that I always keep in mind when I am providing tech support at my site. I get ideas and inspiration from watching the videos and the readings, these ideas I discuss with my site partner Rohit Reddy and it is what keeps me motivated to continue providing support there.

What has impressed me the most at my service learning site is the fact that Marshall elementary school has taken the first steps towards enriching their curriculum with technology. The elementary school has an outdated computer lab, at least one computer/laptop in each classroom, TV smart board, smart projectors and various other devices. But even with the implementation of this technology, there are still obvious problems with using the technology correctly. It is not used correctly because there is no one to train the instructors on how to properly use it. So the dilemma here is that the teachers cannot teach something they don’t know.

I’ve come to the conclusion that not having access to information technology leaves you with fewer opportunities. The simple approach of educating the teachers on basic computer maintenance and prevention will be a great help to the staff’s productivity. Since the staff does not know how to fix basic computer issues, it sometimes leads to them cutting a topic short because they can’t fix it. Because they cut a subject short, students do not get the education they deserve. The goal is to help eliminate these problems by teaching prevention and maintenance so that they know how to fix the problems on their own.
References


