Chapter 26
Digital Inequity:
Understanding the Divide as it Relates to Culture and Disability

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ABSTRACT

A major challenge in education is to ensure that ALL students are prepared for the technological advances of the 21st century and beyond. This means that ALL students must have access and use of information/educational technologies (I/ET), including assistive technologies for students with disabilities, in their schools. Unfortunately, there is evidence that indicates that I/ET is not equitably distributed in schools and across all types of students (i.e., students with disabilities and students from culturally and linguistically diverse (CLD) backgrounds) (Brown, 2004; Brown, Higgins, & Hartley, 2001; Fitzpatrick & Brown, 2008). This chapter will: (a) discuss what access and use looks like for certain at-risk populations (i.e., students with disabilities and CLD students), (b) discuss some of the factors that account for the inequitable access and use of I/ET for those groups, and (c) offer solutions for increasing I/ET access and use for students with disabilities and CLD students.

INTRODUCTION

As we move further into the 21st century, it is evident that technology (instructional/educational and assistive) will continue to play an integral part in the lives of children and adults. And, as it becomes increasingly prevalent, there will continue to be concern regarding the "digital divide" between those children and adolescents who are benefitting and those who are potentially being left behind (i.e., students with disabilities and students from CLD backgrounds) (Brown, 2004; Brown, Higgins, & Hartley, 2001; Fairlie, 2005; Fitzpatrick & Brown, 2008; Mossberger & Tolbert, 2003; U.S. Department of Commerce, 2002).

The most recent data from the Computer and Internet Use Supplement to the Current Population Survey (CPS) of 2003 detailed information on computer and Internet access. The report indicated that there is a large and substantial digital divide that

DOI: 10.4018/978-1-61520-817-3.ch026

currently exists in the United States. This divide may have serious economic consequences for disadvantaged (i.e., CLD students and students with disabilities) groups as I/ET skills are becoming increasingly more important in the labor market, and the Internet is expected to become a primary medium for communication, commerce, education, and entertainment in the 21st century (U.S. General Accounting Office, 2001). Advancements (e.g., economic, educational, and political) for these groups may hinge on access to and effective use of computers, the Internet, and other technologies (Fairlie, 2005).

There is a need for greater understanding of ways in which culture and other forms of diversity affect information/educational technology (I/ET) access and use. There is a noticeable digital divide with regard to computer and Internet access and use by certain groups (i.e., students with disabilities and students from CLD backgrounds) of individuals and this topic has been discussed in the literature (Brown, 2004; DeBell & Chapman, 2003; Fairlie, 2005; U.S. Department of Commerce, 2002).

In order to gain a better understanding of the issues associated with I/ET access and use for students with disabilities and students from CLD backgrounds, we will examine digital equity in education by combining several datasets in order to present a picture of I/ET access and use for the aforementioned groups. We will show that I/ET are, in fact, distributed and used differentially across student demographics (disability status and race/ethnicity). Therefore, this chapter will: (a) discuss what access to and use of I/ET looks like for students with disabilities and CLD students, (b) discuss some of the factors that account for the inequitable access and use of I/ET for those groups, and (c) offer solutions for increasing I/ET access and use for students with disabilities and CLD students. Additionally, we will offer topics for future research regarding technology access and use for students with disabilities and CLD students.

BACKGROUND

Prior to delving into this issue, it is important to make a distinction between I/ET and assistive technology (AT) as it is used in this chapter. The literature is replete with definitions of I/ET and AT. Typically, AT was considered only for students with developmental disabilities because it was thought that these devices (e.g., communication wallets, electronic communication devices, wheelchairs, prone standers, adapted eating utensils, large print or books on tape, Braille watches, closed-circuit television units, hearing aids, etc.) were necessary for their "compensatory" function and helpful in compensating for the students' deficits that are barriers to their achievement. There is a clear relationship between the function lost or impaired and the function AT replaces or enhances (Blackhurst, 2005). Sadly, Warger (2005) noted that there is still misunderstanding regarding the "compensatory" nature of AT despite the widespread availability of resources containing descriptions of devices and services available to educators.

It was once believed that AT were devices provided only to persons with sensory, physical, and communication disabilities (Parette & Peterson-Karlan, 2007). Their visible disabilities were perceived as something that required AT to help compensate for some deficit (e.g., deafness, blindness) exhibited by the children. However, there has recently been a convergence of student achievement-related factors emphasizing not just physical access, but also the role of AT in facilitating access to educational experiences as a means to achieving important curricular outcomes (for example, in the general education environment). Assistive technology can now be used for educational functions associated with academic deficits and learning disabilities (Edyburn, 2000).

There is a range of technology that can support students with their reading, writing, math, information acquisition, organization, and cognitive processes. But, there is oftentimes a blurring of