Chapter 2
Enculturation of Young Children and Technology

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ABSTRACT
Children are exposed to technology in many ways. As technology use in informal settings like the home, the community, the library, the zoos, and museums increases, children are exposed to a variety of applications and technology availability. Each generation of children come to early childhood programs with increasingly different experiences and exposure to technology. Technology has become a strong cultural influence in the lives of children, and we need to explore and think about how this will impact development and learning.

INTRODUCTION: ENCULTRATION ENVIRONMENTS IN TECHNOLOGY
Enculturation is “the process by which an individual learns the traditional content of a culture and assimilates its practices and values” (Meriam-Webster, 2010). But, in this technological world, the content and tools used by the traditional culture are changing at a staggering rate. Just think about it. We live in a world where we now use our phones to send texts instead of talking on them, where we ‘TiVo’ instead of watching live television shows (or, we watch the shows on our computers), where we can instantly access and read books and newspapers on portable e-book readers and ‘tablets’, and where young children
play with robotic pets and toys. By the time the ‘traditional’ culture adopts one of these new technology tools, the tools change.

Although teachers and parents may only think of computers when hearing the word ‘technology’, most young children today are growing up in an environment abundant with technology of all kinds. So, for this chapter, we will broaden the definition of technology to encompass more than just computers. Plowman & Stephen (2003), for example, discussed information and communications technologies (ICT) that not only covered computers, but also computer-related devices (e.g., musical keyboards, recorders, electronic toys, and even remote controls). Because of the convergence of computers and media, we have also included in this definition of technology computer-based portable devices, such as video game consoles (both hand-held and larger), mobile media devices (such as the Apple iPod and other MP3 players and PDAs, both with and without video capabilities), and e-book devices (such as the Apple iPad, Amazon Kindle, and other e-readers). Non-interactive television will not be discussed in terms of the use of technology, however it should be mentioned that young children may be influenced in their use of technology through what they view on television and other screen-based media (Rideout, Vandewater, & Wartella, 2003). Computers, cell phones, video games, music players, computer-based animation, 3d movies and other mobile or fixed technologies are available everywhere from people’s homes to stores, restaurants, and school classrooms; therefore we will discuss enculturation of young children and technology as it relates to these types of devices.

The National Center for Education Statistics (2003) conducted an early childhood longitudinal study on computer access at home and at school. Results indicate that in only one year, from 1999 to 2000, Internet access increased from 49% to 60% for home access and from 75% to 92% for school and classroom access. Considering the rapid development and decrease in cost of technology we can foresee that, within the 10 years that have passed since this survey was conducted, virtually every home and classroom in the United States has computer and other types of technology access for regular use.

As the availability of computers, Internet connections, and various types of software has increased tremendously inside and outside the classroom setting, parents and teachers in all grade levels seek to use and integrate these new technologies to improve students’ learning. Thus, since this media / technology use increases with the age of the child (Lee, Bartolic & Vandewater, 2009; Roberts & Foehr, 2008), the main issue with existing technology becomes the developmental appropriateness of how it is used by children of different age and grade levels (Haugland, 2000).

The chapter is divided into three main discussion sections. The first section discusses various types of technology used by children in non-school settings. Parental issues and developmental considerations are included to give the reader a more comprehensive understanding of how the digital age touches all parts of children’s lives. The second section examines the use of technologies with young children from a developmental perspective. We also address concerns with the uses of these technologies in relationship to teaching and learning. We hope to dispel some of the technology myths that teachers of young children have about technology and learning in the early childhood classroom. The concept of the digital divide is addressed in this section as well. The last section of this chapter discusses technology evaluation issues and concrete use of technology by educators of young children.

**Objectives**

While technology is experienced by all age groups in different ways, the goal of this chapter is to address young children from birth to 8 years of age. After reading this chapter the reader should develop a better understanding of:
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