Chapter 2
What Is Technology?

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ABSTRACT

The first division within the definition debate begins with a fundamental question, “What is technology?” Technology as artifact or device exists as the most common notion of technology. There are many different views on interpreting what the definition of technology is. The importance of this chapter is the policies regarding uses of technology and access to technology, which are key components to the integration of technology in schools.

INTRODUCTION

The first division within the definition debate begins with a fundamental question, “what is technology?” Technology as artifact or device exists as the most common notion of technology. David Billingham notes that the most collective understanding of technology as a physical product often leads people to define technology. “When people talk about technology today, they usually mean the products of modern engineering: computers, power plants, automobiles, nuclear weapons” (Mitchan, 1994, p. 161). As John Street (1991), Political Professor of Politics at Warwick University, notes, “Technology is typically thought of as a piece of hardware employed or fashioned to serve a particular purpose” (p 9). As we can see, there are many different views on interpreting what the definition of technology is. The importance of this chapter is the policies regarding uses of technology and access to technology are components to the integration of technology in schools.
What Is Technology?

When people talk about technology, they do not so much discuss the device but its use. For example, the computer works to display information, to write a report. What is primary in the minds of users is not the device but the device in use. It is the utility of a device within a setting that we are all primarily concerned. For example, a networked computer cannot be separate from its monitor, keyboard, the central processing unit, operating systems, its network, and the interface design. Nor can it be separated from its users, their needs, and the needs of the network administrator, and so.

The understanding of technology and experience allows one to think of it as operational inside a context. This manner of thinking about technology makes it virtually impossible to truly separate the dimensions contained within technology from one another since there is a necessary balance among its various elements. Modern technology is many elements including the perspectives, goals, and skills of individual’s users, cultural groups, business groups, technical devices and forms of government and control.

Technology when considering a practice, and experience, allows one’s concept of technology to include within its meaning the implementation of values. In this way technology is a form of perception, of understanding, and an interpretation of what it means to be in the world. Technology understood in this way is not only characteristically instrumental but interpretive and perceptual as well. Therefore, an adequate concept of technology must include not only a meaning that defines its instrumental attributes-technology as a mode of production—but must address technology and its characteristics of perception and know the world.

Policies regarding uses of technology and access to technology are components to the integration of technology in schools. Technology in its simplest and most complex form helps solve problems and makes tedious tasks routine. Because of advancement in technology, we now live in a digital age dominated by technology and mobile devices that provide information easily and on demand. Emerging technologies allow commerce, communication, and virtual interaction with various entities. Without a doubt, technology literacy—like knowing how to read, write, and do arithmetic—is a necessity in today’s schools and wireless world. Nonetheless, America’s public schools have been slow to embrace the idea of utilizing a curriculum that prepares students for the 21st-century (Wagner, 2010). Federal government mandates technology training and state governments offer technology grants, yet schools still are not enforcing technology proficiency of students because it is not a requirement of high stakes testing. Unlike core subject areas, state technology exams do not require adequate yearly progress (AYP) or penalization of students who fail technology exams.
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