

Chapter 3

Technology in Higher Education: Understanding Student Issues

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ABSTRACT

Technology has played a significant role in changing the face of higher education. In order to successfully use technology, institutions of higher education must recognize that students play a central role in their decision making regarding the application of technology for the purpose of communication, and learning. This chapter addresses several issue related to the student issues and the use of technology in higher education. The notion of a particular type of student (i.e. “digital native”) is examined, as well as the current skills and use of technology by college students. The chapter continues on to discuss the concepts of digital recreation, digital communication, and their related issues to instruction in University settings. Finally the chapter explores the need for universities to examine diversity issues when integrating technology. The chapter concludes by recommending a tailoring perspective to technology integration that utilizes a decentralized approach to helping faculty integrate technology.

INTRODUCTION

Technology changes the way we educate, learn, and communicate. Innovations in technology impact higher education in several ways includ-

ing student issues regarding use, ability, access, and diversity. University students use technology at higher levels than any other generation (Cotton, 2008; Junco & Mastrodicasa, 2007). This increased technology use provides universities with a vehicle to communicate and to instruct in ways not explored previously by institutions of

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higher education. The Internet has transformed higher education, (Robinson & Hullinger, 2008) allowing universities to reach more diverse populations and create new learning environments (Hara & Kiling, 2000). However, institutions of higher education must be aware of how students employ technology, and must consider student perspectives regarding how technology can best be integrated for instruction and communication. Student issues must be understood when integrating technology in higher education. This chapter discusses students as digital natives, recreational technologies, digital communication, and multicultural concerns related to technology use in higher education.

DIGITAL NATIVES OR NOT?

The proliferation of computers and digital peripherals (e.g., video cameras, digital audio recorders, MP3 players) cell phones, smart phones, online resources, online communication applications, and software applications have brought about increased access to information, and new tools for educating, communicating and entertaining our current and future generations of college students. The technological advances in information and communication technologies (ICT) over the last 15 years have allowed individuals to access, share, and create digital “information” more than any other time in our history. The life experiences of individuals growing up in this technological age has led many to claim that they are uniquely different than previous generations, and has even resulted in a variety of labels: “Net generation,” (Tapscott, 1999), “Millenials,” (Howe & Strauss, 2000), and “Digital Natives” (Prenksy, 2001). The label “Digital Natives” refers to the generations born in or after the 1980s that grew up and were socialized in a rapidly advancing technological society, and describes a generation that embraces new technologies and makes the use of ICT almost a daily occurrence (Prensky, 2001). As a

result of growing up in a technological society, it is presumed that this generation possesses significantly more technological knowledge and skills, demonstrates distinctively different means of processing information than previous generations, and creates a unique set of learners, with different needs and expectations.

Essentially, digital natives are perceived as “new learners” whose expectations of the application and integration of technology in their college learning experience uniquely differentiates them from the experience of previous generations. So, what are the suggested differences of these new learners? What makes the digital natives a unique group of students? These students are characterized as being technologically adept, and favoring digital methods (e.g. e-mail, instant messaging, text messaging, and social networking sites) as their means of communicating. They are more interested in learning in groups, and applying technology to their learning, they are rapid processors of information, they are multi-taskers, and are disinterested in the traditional means of learning (Howe & Strauss, 2000; Prensky, 2001; Oblinger, 2003). This perspective of new students purported by Prensky and others appears to suggest that universities, particularly faculty, must change their pedagogical practices in order to meet the expectation of these digital natives. Prensky (2005) goes so far as to suggest that if we do not engage this generation of learners on a technological level, we will enrage them.

Conversely, those born prior to 1980s, make up the majority of university faculty are considered to be “digital immigrants.” Digital immigrants are those who were not socialized in a technological society, but instead have had to adapt and learn to live in a digital age (Prensky, 2001). Prensky goes on further to explain that digital immigrants are not responsive to the educational needs of digital natives, “Digital Immigrant instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language” (Prensky,

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