Chapter 89
The Gloss and the Reality of Teaching Digital Natives:
Taking the Long View

Star A. Muir
George Mason University, USA

ABSTRACT

Characterizations of youth growing up with the Internet as Digital Natives have begun a revolution in teaching, but have also been problematized in the literature, opening up significant questions about stereotypical assumptions made by teachers about students in the classroom. Research indicates that a continuing gap exists between "power users" and "digital strangers," which has broad implications for educational priorities and classroom practice. Evidence is also mounting that heavy internet and concurrent media usage impacts both students' ability to focus and their evolving habits of mind as the brain responds to new sources of positive reinforcement. This chapter explores some of these tensions in characterizing and responding to Digital Natives, and seeks to identify a responsive pedagogy of classroom practices that tap into student passions, offer students some techniques to learn focus, attention, and other important skills for both digital and "analog" environments, and address persistent skill gaps between students.

INTRODUCTION

When Marc Prensky (2001) developed the term "Digital Native," he had little idea of the resonance this term would have in our culture. In commerce, entertainment, the workplace, education and numerous other sectors of life, the term has infiltrated society. In usage it has functioned to frame identity, create stereotypes, support grants, sell cell phones, gadgets and lifestyle choices, design curricula, mislead administrators, and inform policymakers, all within a span of about ten years since Prensky's (2001) first writing about "Digital Natives, Digital Immigrants." An open Google search of the terms yields 5.89 mil-

DOI: 10.4018/978-1-4666-1852-7.ch089

lion results, while linking them together ("digital native") yields roughly 454,000 results. Some of the intensive "cottage industry" that has grown up around the term reflects a high level of "gloss," as multiple different perspectives appear somewhat "polished" and are offered as representative and essentializing descriptors for myriad kinds of people growing up in radically diverse environments. This is at least partly why use of the term "Digital Native" appears at times both glib and perceptive, both laden with misconceptions and full of potential.

This chapter takes a longer view of educating Digital Natives by first discussing some challenges and opportunities outlined for educating students raised with the internet, then problematizing the concept of Digital Native as a hasty generalization, identifying particularly challenging habits of mind emerging from extended internet and multimedia use, and offering a responsive pedagogy that tries to address these challenges through discovery, mindfulness and sharing strategies.

CONTEXTUALIZING THE DIGITAL NATIVE

In the 1990s, the media ecology tradition began identifying an emerging cultural evolutionary shift, which included in part the fall of linear thinking, and the rise of an age of chaos. Rushkoff (2006) describes the rise of holism, animism, consensual hallucination, and distanced participation, and explored myriad ways the "screenagers" embrace chaos, ultimately leading us in adapting to our new cultural milieu. When Prensky introduced the native/immigrant distinction in 2001, he emphasized the need for new learning tools, particularly video games, that would interest as well as inform students. Later, in *Don't Bother Me Now, Mom—I'm Learning* (2006), he extolled the problem-solving and decision-making skills learned using video games. In his most complete work to date on Digital Natives, *Teaching Digital Natives: Partnering for Real Learning*, Prensky (2010) likens his Partnering pedagogy to Problem-, Inquiry-, Challenge-, and Case-based learning, with additional perspectives on the roles of teachers and students in using technology to engage students in ways our current "digital immigrant" designed schools do not. Teachers should avoid the classic "tell and test" in favor of asking probing questions, suggesting challenges, topics and tools, being open to learning about technology from students, supplying context, and evaluating student output for rigor and quality.

Aimed at least in part at reassuring educators uncertain of their new roles, Prensky distinguishes between perennial and relatively unchanging learning Verbs (skills needed to master, like analyzing, evaluating, reflecting, problem-solving, presenting) and rapidly changing Nouns (tools used for developing skills like podcasts, wikis, blogs, brainstorming and game creation tools). In his view, teachers have a responsibility to focus on the selection of Verbs and provide clear quality expectations and feedback, but will often have a learning role because of lack of familiarity with some of the Nouns. Through partnerships, teachers need to tap into student passions to drive learning, and to provide learning that is not just relevant (it relates to something students know) but real (there is a perceived connection between what is learned and doing something useful in the world), while letting students have more control over the Noun (technology) they use.

Focusing on more specific qualities of learners raised in a digital world, Jukes, McCain and Crockett's (2010) underscore the urgency of adapting educational strategies by tracing evolving functional differences in brain structure (neuroplasticity, enhanced visual processing, reading in an "F" pattern, more than 60% are not auditory or text learners) to explain why students are bored in school and have very different learning preferences. To avoid an impending "disconnect tragedy," they advocate educational strategies that feature whole-mind instruction moving