

Digital Culture: Immigrants and Tourists Responding to the Natives' Drumbeat

Cheri A. Toledo
Illinois State University

This paper looks at the *digital native-digital immigrant* model presented by Prensky, addresses some of the nuances of each group, and proposes the addition of another group to describe many of the non-users of technology we find throughout education. Suggestions to assist faculty in integrating appropriate technologies into their teaching are provided.

I remember walking into [our] home office one evening when David, now 21, was in high school. I watched in amazement as he talked on a cell phone and a land-line phone simultaneously, while monitoring several instant message conversations on the net, fingers flying over the keyboard. This was just his background noise to accompany his homework, which he was also doing. I remember thinking that something is going on here. I am good with computers and the net, but nothing like this (Hiemstra, 2005, ¶ 3).

In 2001, Marc Prensky, a self-admitted guru of game-based education, presented a model addressing the differences between current students and their teachers. Basing his idea on the impact that technology has had on our culture, he suggested two groups: *digital natives* and *digital tourists*. VanSlyke (2003) stated, "The native/immigrant analogy can help us understand the differences between those who are comfortable with technology and those who are not" (¶ 5). While this analogy provides a starting point for understanding the gap between the technology-immersed generation and the rest of us, it is a generalization. The purpose of this article is to embellish the analogy to address some of the nuances that have gone unaddressed, present alternative models, and discuss implications for teachers.

Overview

To understand what Prensky is saying, it is necessary to look at a brief overview of his analogy of *digital natives* and *immigrants*. Prensky (2001) states, "Our students today are all *native speakers* of the digital language of computers, video games and the Internet" (¶ 5). Thus they get the designation, *digital natives*. Prensky continues, "Those of us who were not born into the digital world but have, at some later point in our lives, become fascinated by and adopted many or most aspects of the new technology are ... *digital immigrants*" (¶ 6). This model has created a tension between those who have been immersed in technology

from birth and those who have found themselves in the evolving world of technology. Visser (n.d.) puts it this way, "Marc Prensky coined the terms 'digital native' and 'digital immigrant' to imply a continuum of fluency with the use of digital technologies" (¶ 3). Brooks-Young (2005) provides definitions of the digital native and the digital immigrant:

dig-i-tal na-tive, *n.* A technology user under the age of 30, who was born into the digital world" (Digital Immigrants and Digital Natives: What's the Difference? section, ¶ 2).

dig-i-tal im-mi-grant, *n.* A technology user, usually over the age of thirty, who was not born into the digital world." (Digital Immigrants and Digital Natives: What's the Difference? section, ¶ 1).

Visser (n.d.) provides another important perspective by stating that *digital natives* developed their first information literacy skills "in the digital world with computers, videos, and the Internet" (¶ 4). *Digital immigrants*, on the other hand, formed their information literacy skills "in the print world" (¶ 4). This is an important distinction as we look at how these two groups interact in the classroom later in this piece.

Many sources ("A Disconnect," n.d.; Brooks-Young, 2005; Broward County Public Schools, n.d.; Feeney, n.d.;) have summarized and embellished the technology behaviors of Prensky's two groups. A quiz (see http://www.trinity.edu/departments/iraa/IRAA_NEWS_FacultyStaff.pdf). developed by Ananthanarayanan (2004) targets the behaviors of each group. Here are some of the questions:

When you need information, you:

- Pick up a newspaper, book, or journal.
- Google it on the Internet

If you need to install a program on your computer, you:

- Read the manual.
- Pop in the CD and let the installer wizard

show you how.

You are at your best when you multi-task and parallel process.

- a. Can we just take it one at a time and step-by-step please?
- b. Bring it on, the more the merrier!

You stay connected through instant messengers, update your blog regularly, and have to have your regular fix of *Everquest* or *Halo*.

- a. What was all that again?
- b. What else is there?

According to the answer key, those who chose mostly *a*'s are digital immigrants; while those with mostly *b*'s are digital natives.

Jukes and Dosaj (2006) have created descriptions of behaviors that they feel differentiate native learners from immigrant teachers. A summary of the behaviors of digital immigrant teachers include:

- Prefer slow and controlled release of information from limited sources.
- Prefer singular processing and single or limited tasking.
- Prefer to provide text before pictures, sounds, and video.
- Prefer to provide information linearly, logically, and sequentially.
- Prefer students to work independently rather than network and interact.
- Prefer to teach "just-in-case" (it's on the exam).
- Prefer to teach to the curriculum guide and standardized tests.
- Prefer deferred gratification and deferred rewards. (see "A Disconnect," n.d., Table 1)

The behaviors of the digital native learners include:

- Prefer receiving information quickly from multiple multimedia sources.
- Prefer parallel processing and multitasking.
- Prefer processing pictures, sounds, and video before text.
- Prefer random access to hyperlinked multimedia information.
- Prefer to interact/network simultaneously with many others.
- Prefer instant gratification and instant rewards.
- Prefer learning that is relevant, instantly useful, and fun.
- Prefer to learn "just-in-time." (see "A Disconnect," n.d., Table 1)

A 2002 Pew Internet and American Life Project, *The Digital Disconnect: The Widening Gap Between Internet-Savvy Students and Their Schools* (Arafeh, Levin, Rainie, & Lenhart), reported that 78% of students between 12 and 17 were visiting the Internet. This qualitative study used focus groups to identify the Internet attitudes and behaviors of 136 middle and high school students across the U.S. In addition, approximately 200 students voluntarily shared stories of their Internet use for school. The following summarizes the findings pertinent to this discussion:

1. Internet-savvy students rely on the Internet to help them do their schoolwork;
2. Internet-savvy students described dozens of education-related uses of the Internet;
3. Many schools and teachers have not yet recognized, much less responded to, the new ways students communicate and access information over the Internet.
4. The following factors produce the disconnect: school administrators – not teachers – set the tone for Internet use at school; there is a wide variation in teacher policies about Internet use by students in and for class; students reported both engaging and poor instructional uses of Internet assigned by their teachers; the not-so-engaging uses were more typical;
5. Student see a need for professional development and support for teachers to help them better integrate the Internet into the curricula
6. Policy makers need to take the digital divide seriously and begin to understand the more subtle inequities among teenagers that manifest themselves in differences in the quality of student Internet access and use. (p. ii-v)

Arafeh et al. (2002) further summarize their findings:

Students are frustrated and increasingly dissatisfied by the digital disconnect they are experiencing at school. They cannot conceive of doing school work without Internet access, and yet they are not being given many opportunities in school to take advantage of the Internet. (p. v)

This study was conducted over five years ago. We must realize that many of these students are now sitting in our university classrooms. In 2005, Lenhart, Madden, and Hitlin conducted a follow-up study for the Pew Internet and American Life Project, *Teens and Technology: Youth are Leading the Transition to a Fully Wired and Mobile Nation*. They found that

teenage Internet users had increased by 24% and that 87% of 12- to 17-year-olds were online. The authors state, “Compared to four years ago, teens’ use of the Internet has intensified and broadened as they log on more often and do more things when they are online” (¶ 2).

Jones and Madden (2002) surveyed and observed over 2,000 students from 27 colleges and universities around the United States to determine the impact of the Internet on the daily lives, and academic and social routines of college students. The study found that 20% of the participants had begun using computers when they were between 5 and 8 years old; between ages 16 and 18, all of them were using computers. Again, while this study is over seven years old, it provides us with the evidence behind the differences between many digital native students and their digital immigrant instructors.

It is important to recognize how being surrounded by all types of technology, not just the Internet, can have a palpable impact on the way digital natives prefer to process information (Jukes & Dosaj, 2006). As a result, the vast majority of teachers – with varied levels of teaching experience and technology expertise and preferences – experience a gap between their teaching styles and the learning styles of their students. Brooks-Young (2005) provides an excellent description of this gap:

Today’s students are digital natives. They come to us with very different technology-related experiences, attitudes, and expectations than we had growing up because they were born into the digital age; they don’t know anything different. Many of them have never seen a telephone with a dial, a cash register without scanning capability, or a manual adding machine (Digital Immigrants and Digital Natives: What’s the Difference? section, ¶ 4).

It can be difficult for digital immigrants to understand the comfort that so many digital natives have with all these new technologies. Jukes and Dosaj (2006) state, “They are DFL, they speak Digital as a First Language” (p. 11). Digital immigrants, however, exhibit what can be referred to as an accent. Although they are motivated by how students manipulate their digital environment,

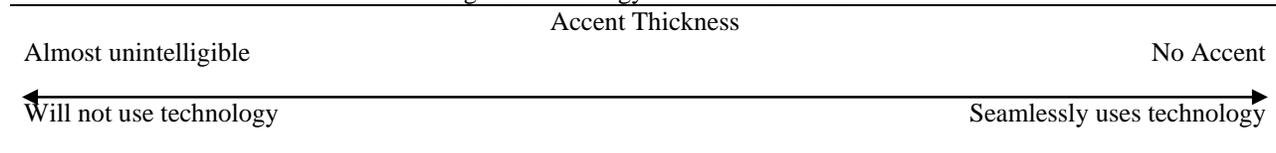
many digital immigrants who want to become more native-like continue to process and manipulate digital information as they did print information. It is important to look at the potential impact of the digital immigrant’s accent on his or her interaction with digital natives.

The Immigrant’s Accent

In continuing his description of native and immigrant technology cultures, Prensky (2001) posits the idea of a “digital immigrant accent” (¶ 7). One characteristic of worldwide immigrants is their struggle, not only with the culture, but also the language. Second-language learners struggle with vocabulary and pronunciation, and they are readily identified as non-natives, that is, immigrants. The same can be said as the digital immigrants attempt to fit into the digital culture; they speak DSL, digital as a second language (Jukes & Dosaj, 2006). Similar to second language learners, digital immigrants are attempting to learn a new way of speaking the language of technology. As new learners of any language, it is possible to become proficient in a new language, but it is a rarity to find an immigrant who has lost their native accent. This idea of an *accent* can be seen as the level of comfort with technology. The more comfortable a user is with technology use, the more daring he or she is to try new technologies, the less accent is evident; he or she seems to be able to manipulate the digital language. This brings in the idea of varied accent *thickness* – new immigrants have a thick, or heavy, accent as they speak the new language. And so it is with digital immigrants, their accents tend to vary with the level of their technology comfort. As shown in the Digital Technology Accent Continuum in Figure 1, the *almost unintelligible accent* is found in a person who will not use technology or who uses just enough to get by. On the other end of the spectrum, the *seamlessly uses technology* denotation reflects the lack of a digital accent.

According to Visser (n.d.), “the accent of their [digital immigrants’] print centered childhood lingers and the syntax and idioms of online research can remain a foreign language” (Abstract section, ¶ 1). Although *digital immigrants* attempt to speak the native language of the technology world, many find

FIGURE 1
Digital Technology Accent Continuum



themselves printing out emails rather than reading them off the screen, sharing a website in person instead of sending the URL via email, editing documents on a hard copy rather than on the screen, looking to the Internet after looking at other information sources, and using a manual to learn a software program rather than learning it through trial and error. Prensky (2001) stated “My own favorite example is the ‘Did you get my email?’ phone call” (§ 8). Digital immigrants displaying these types of behaviors can be said to have heavy accents.

Brooks-Young (2005) provides a logical addition to Prensky’s analogy by stating, “Digital immigrants can achieve proficiency with new technologies; however, most attempt to use these new tools within the framework of their own previous learning” (Digital Immigrants and Digital Natives: What’s the Difference? section, § 4). As digital immigrants use this approach, they are able to increase the speed with which they complete familiar tasks, but are generally unable to apply the technology to new tasks. The accent is evident in Brooks-Young’s example of a digital immigrant who uses a handheld device for note taking at a meeting. Instead of beaming the notes to other attendees, he goes back to his office, prints out the notes, and distributes paper copies. While this behavior is indicative of an immigrant, it is probably situated in the middle of the continuum.

Conclusions on Prensky

Online blogs and listservs are filled with reactions that both agree with and rebut Prensky’s dichotomous representation of the digital culture. Hiemstra (2005) states, “If you have kids in the age range of 2-20, watch them sometime. Watch how they access information. This is the ‘digital native’ generation, the first to grow up with computers, then with the Web. They are not like us” (§ 2). Culligan (2003) sees the ubiquitous nature of technology feeding the insatiable native appetite, “Today’s youth ... have enthusiastically embraced technologies that are on the leading edge of the technology wave including live chats, instant messaging, smart mobs, blogs, wikis, modding, and more” (Blogs, Wikis, and Modding, Oh My! section, § 1). These are the idioms of the digital native culture, but digital immigrants are in dire need of an interpreter for this language. The discussion board statement of Anne L. (n.d.) shows the pervasive division between these two groups “At work, I am a ‘digital native’ island in a ‘digital immigrant’ sea” (§ 1).

VanSlyke (2002) provides another view of Prensky’s model, “As much as I agree with the appropriateness of the analogy ... I disagree with many of the assertions that Prensky draws from it” (§ 2).

According to VanSlyke, Prensky draws powerful conclusions from an over-emphasis of the differences and a de-emphasis of the similarities between the two cultures. Feeney (n.d.) adds, “While thought-provoking, his analysis of technical skills of students and educators is very simplistic. Just as all educators do not reject or resist technology; neither do all students embrace technology. However, we are all denizens of a digital world” (Why categorize technology usage? section, § 2). Considering the varied responses to Prensky’s model, we are obliged to take a look at what others have been offered to describe the changes that we are seeing in our classrooms.

Alternative Models

Several models have developed embellishments of Prensky’s initial categories. Coburn (2004b) suggested the addition of an “Analogists” (§ 11) group characterized by the following: “They are over my (somewhat arbitrary) 25-year-old barrier; they are terrified of any whiff of technology, and they are abundant” (§ 14). Feeney (n.d.), in her article *Digital Denizens*, suggests that adding more categories can be useful. She provides a short, non-scientific quiz to help individuals identify their category. The following summarizes Feeney’s continuum:

- *Digital recluse*: use of technology is a result of the need to function in the current environment, not used by choice; computers are prohibited in his/her home.
- *Digital refugee*: unwillingly forced to use technology; prefers hard copies, does not trust electronic resources; seeks assistance; may have grown up with technology or adopted it as an adult.
- *Digital immigrant*: willingly uses technology, but not familiar with its potential; believes technology can be used successfully for some tasks; may have grown up with technology or adopted it as an adult.
- *Digital native*: chooses to use technology for numerous tasks; adapts as the tools change; may have grown up with technology or adopted it as an adult.
- *Digital explorer*: uses technology to push the envelope; seeks new tools that provide more work, faster, and easier.
- *Digital innovator*: adapts and changes old tools for new tasks; creates new tools.
- *Digital addict*: dependent on technology; will go through withdrawal when technology is not available.

Feeney's additional descriptors provide a more thorough representation of the divide between students and instructors than that seen in Prensky's natives and immigrants model. To take Feeney's complete quiz, go to <http://loki.stockton.edu/~intech/spotlight-digital-denizens.htm>.

In keeping with the native/immigrant metaphor, and in an attempt to provide a simple model, this paper will suggest the addition of the digital tourist to Prensky's continuum. In order to provide a foundation for this addition, it is important to address some of the issues of culture.

Understanding Culture

Immigrants are immersed in a new culture where life is different from what they know. As they learn about their new culture, its language, accepted behaviors, and nuances, they begin to acclimate and eventually fit in, sometimes even becoming undetectable. Interestingly, as educators, we probably thought that we were assisting our students in the assimilation process, helping them to become viable members of the culture and society they were born into by continuing an educational system based on a teacher-centered approach. However, the proliferation of the digital world has reversed some aspects of the assimilation process. In fact, we have seen the process of acculturation – the change in a culture facilitated by a dominant, alien society (Winthrop, 1991) – occur as digital natives have impacted the culture with a new worldview in which technology is marbled throughout their lives. Although we educators see ourselves as the dominant society, when it comes to the digital world, we are the non-dominant immigrants.

Van der Veen (2005) presented several levels of assimilation, three of which have bearing on this discussion. He states that *cultural assimilation* occurs as the “dogmas, ideologies, language and other systems of symbols of the dominant culture are adopted” (Types of Assimilation section, ¶ 1). Of particular application to the digital immigrant at this level of assimilation is the incorporation of the language and symbols of the digital world. As digital immigrants learn the lingo and are comfortable communicating with digital natives, they become a part of the new culture and are culturally assimilated.

The second level, *structural assimilation*, occurs as immigrants “become members of the primary groups within dominant ethnic populations, their families, close friends, cliques within clubs, and groups within organizations” (Types of Assimilation section, ¶ 1). If you ask digital immigrants with relatively high levels of assimilation what they do online, they will probably report involvement in blogs, wikis, podcasts, and other

digital native activities. So, they are experiencing structural assimilation.

A last level of assimilation, *identification*, occurs when “individuals no longer see themselves as distinctive and, like members of the dominant groups, stake their personal identities to participation and success in the mainstream institutions of a society” (Types of Assimilation section, ¶ 1). Digital immigrants who are highly involved in extending the uses of technology will rarely see themselves as different from digital natives. When educators achieve this level of assimilation, they participate in the tasks they see their students doing; they may even be introducing new tasks to their students by creating good pedagogical applications of the new digital tools.

Educators must decide whether or not they will move into the dominant digital society. Those who make this decision and assimilate will find their accents becoming less pronounced. They will be able to find their way around the digital landscape and willingly embrace new facets of the culture. While many of these non-natives have decided to embrace the digital culture, there are those who merely have not. In response to Coburn's (2004b) analogist category and Feeney's (n.d.) digital denizens, this author proposes the category of digital tourist.

Digital Tourist

According to the Merriam-Webster Online Dictionary (n.d.), a tourist is “one that makes a tour for pleasure or culture.” A tour is defined as “a journey where one returns to the starting point; a journey for business, pleasure, or education often involving a series of stops and ending at the starting point.” These definitions paint a picture of temporary situations and interactions; the tourists always return home where they are most comfortable. Wells (2004) states it well:

Tourists are more likely to maintain a distance between themselves and the places that they visit. They often travel in tour groups, which offer the advantage of obtaining cursory information about the sights visited, but also have the disadvantage of discouraging individual discovery. Thus, at travel destinations tourists behave as one would before department store window displays, viewing them but not venturing into the store to browse or to buy (¶ 3).

Digital tourists display many of these same behaviors as they interact with the digital world. They embrace the language and tools of the foreign land only in order to function while they are there. We see digital tourists resist the application of technology to their

personal and professional lives. They are the ones at the grocery store who use a checkbook instead of an ATM card, waiting to fill out the check until the cashier announces the total; they are reluctant to buy a cell phone or home computer with Internet access; and they still see no purpose in paying for cable TV when they get the major channels. Digital tourists are scattered throughout K-12 and higher education classrooms. They continue to teach as they were taught and see no reason to change their instructional styles to meet the changing needs of their digital native students; they remain visitors in the digital world. These print-based teachers have classrooms full of digital natives and see no need to make any allowances. There is probably no place where the gap between these two groups is more evident than in K-16 classrooms.

Application to Teachers

Narrowing the digital gap between the classroom teacher – immigrant or tourist – and the native student is a key concern as we look at the impact that technology has had, and will continue to have, on our daily lives. In most cases, immigrant teachers do not pose a real problem; many have the ambition to explore and experiment with the technology. In fact, in many settings the immigrant instructor has taken on the role of change agent and becomes the resident technology guru for the staff; he or she has learned how to negotiate the new culture in ways that are unnecessary to the digital native. The greatest challenge comes in helping the tourist teacher see the positive impact that effective and appropriate technology infusion can have on his or her students' learning. To this end, Battro and Denham (n.d.) stated,

The creation of new digital habits depends on the development of a new mind-set. Such a development cannot be improvised, nor can it be imposed from outside. It requires an effort of adaptation to the new features of a digital environment (§ 1).

Coburn (2004a) adds an interesting twist to this idea of adopting new technologies. He proposes using the idea of “the change function” to shed light on why some new technologies get adopted, while the vast majority winds up in the dungeon of ‘unmitigated-failure gee-whiz’ technologies” (§ 1). In his view, people will begin using new technologies when a crisis has developed that exceeds the total perceived pain of adopting a technological solution to the crisis. He has designed a formula that provides a mathematical visualization of this process:

$$\text{tech change} = f(\text{user crisis vs. user's total perceived pain of adoption})$$

That is, a change in technology use is a function of the relationship between the user's crisis and the perceived pain of adoption. As the crisis increases and numbs out the perceived pain of adopting the new technology, users, including tourist teachers, will implement the new technology. These crises can take many forms: peer, administrative, and parental pressures; monetary incentives; job security; and even personal pride. When faced with the choice, many immigrant, and some tourist, teachers will change their utilization of technology. Those who embrace technology, even experiment with its use in our classroom can provide what the non-users need to become effective users. We can share our experiences and help them create a technology-rich classroom environment that prepares our students to be competitive in the digital world.

Crisis is a major motivator for change, calling one to react to the situation causing discomfort or anxiety. But what keeps technology integration from hitting the crisis motivation point? In looking at faculty motivations for adopting technology into their teaching, Pajares (1996) states that “there is a strong relationship between teachers' educational beliefs and their planning, instructional decisions, and the classroom practices” (p. 326). Levine (2004) adds that while individual beliefs largely influence how faculty use technology in their teaching, there is also the cultural factor, in particular, the “organizational culture where they work” (p. 1). The culture of the Academy is grounded in the print world traditions. Again we are faced with the gap between the print world culture and the digital world culture: natives, immigrants, and tourists.

In order for faculty to change, they need to see examples of pedagogically sound applications of technology that take into account the skill levels of the students and the access to technology for all involved. Morrison and Bowen (2005/2006) found that when instructors improved their technology skills and integration, no change was seen by the students.

For students, using more technology made no difference; the difference they sought was at the design and access levels. Teachers still designed the learning task and only provided access to those technologies with which they were comfortable. Students seek a change in process, not just the automation of a traditional one (§ 5).

Why are we doing old things with new tools, rather than doing new things with new tools? Richards (2003)

states, “Digital Natives, who are empowered in their personal lives and immersed in interactive technology, find old teaching methods [according to Prensky] ‘horribly boring’” (§ 5). We must be intentional in making the paradigm shift before the crisis level phenomenon that Coburn refers to forces a change. We can take charge of the change by being proactive, looking at the available technologies, and applying sound pedagogical principles to their application. The following section provides suggestions for moving common print-based assignments and activities into the digital world.

Suggestions for Application

What are the assignments and activities that you ask your students to engage in? I asked a group of

doctoral students to brainstorm this question and they came up with a list of over thirty items. Next, what technologies are available for your students to use? The same group listed over fifty technologies. Table 1 presents some suggestions for moving your student engagements from the print world to the digital world.

Obviously, these resources merely scratch the surface of available technologies and their use for assignments and activities. In addition, some of these suggestions are probably commonplace in your classrooms. It is also important to note that digital activities do not have to replace face-to-face activities; they can be used to supplement and reinforce classroom learning experiences. (For additional resources and examples of some of these applications please visit <http://coe.ilstu.edu/etip>. This site provides definitions, rationale and online examples of what is available.)

TABLE 1
Moving from Print to Digital

Print World	Digital World
Lecture	Podcast, vodcast (video podcast), webcast or PowerPoint with audio posted online – load into a wiki or use Gcast; supplement with lectures found in iTunes (download the free software and search)
Hard copy books	eBooks – viewable on handhelds, iPods, laptops; use a wiki to have students develop their own text books – Wikispaces or PBWiki
Paper assignments collected in person	Electronically submitted assignments; blogs for recording student reflections – Wordpress, Blogger
Research paper using hard copy sources, word processed, paper copy submission	Research paper using online, peer-reviewed sources available through reputable databases; word processed and submitted electronically through a course management system; posting of findings in a wiki; have students search through podcasts in iTunes
Tests and quizzes taken in class – scantron or written responses	Online tests and quizzes – timed, randomized questions, graded by the course management system
Grading hard copy assignments/activities by hand	Grade electronic assignments/activities with tablet pc or graphic tablet
Classroom discussions	Online asynchronous discussions; online discussion starters that are concluded face-to-face
Group presentation – students prepare during class time and present face-to-face (f2f)	Group presentation – students use Zoho or Google Docs to collaborate on their document and present via asynchronous discussion forums, synchronous software such as Elluminate, post digital video online using Yahoo Video or YouTube; instructors can use TeacherTube
Poster board presentation	Use Flickr to post digital pictures, scanned copies of the presentation; use a wiki to present content, graphics, and link
Biography report	Students design and develop a podcast interview or role play of an historical figure; develop a digital story
Hard copy static portfolio	Dynamic electronic portfolio
Hard copy grade book; student grades posted on office door	Online grade book that students have access to 24/7
Pen pals with students in another part of the world – especially effective for second language acquisition	Use Skype for text messaging and voice over Internet communications (download free software)
Face-to-face debate	Online debate in asynchronous discussion forums, synchronous chat rooms, or virtual classrooms with avatars, e.g., Second Life (download free software)
Face-to-face field trip	Virtual field trip
Face-to-face science labs	Virtual science labs – virtual frog dissection

Conclusion

In looking at the differences between natives, immigrants, and tourists, it is important to be aware that using technology and integrating it into our teaching is, first, a preference and, second, based on access. Not all immigrants and tourists are interested in immersing themselves in technology; so it is with students born into the digital age. Many times we hear that it is the younger teachers who are tech-savvy and the older teachers who are tech-avoidant. The propensity to immerse oneself in technology, to create a technology-rich educational environment, and to take advantage of the strengths of technology in the classroom are all functions of exposure and interest, not age. Cuban (2001), in his landmark study which resulted in the book *Oversold and Underused*, “found very little difference in computer use between veteran and novice teachers, between those with and those without previous technological experience, or between men and women” (p. 98). This strengthens the argument against pigeonholing people into dichotomous categories. As good educators, we must determine the current levels of knowledge, skill, and attitude regarding technology prior to designing professional development and learning environments.

Two questions remain. First, how do we help our *digital tourist* colleagues emigrate from their technology-barren land and become digital immigrants in 21st century education? Not all of them will leave their non-tech comfort zones. However, as they are exposed to the impact that well-designed and well-executed technology immersion can have on student engagement and student learning, they might dabble a bit here and there; they might ask, “How do you do that?” This can result in a positive impact on education.

Second, will we see change in the pedagogy and the classroom when teachers are predominantly digital natives? As students/teachers who are comfortable with technology become empowered to change the system of education as we know it now, who is to say what we will see in the K-16 classroom in the next decade? We will have to wait; only time will tell.

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DR. CHERI TOLEDO, Assistant Professor in Curriculum and Instruction at Illinois State University, is the Director of Ed Tech Immersion Plus (ETIP). She teaches in the Secondary Education program, and in the C&I Master’s and Doctoral programs. Dr. Toledo’s research revolves around online learning and educational technology integration with teacher education faculty and preservice teachers –specifically the use of Web 2.0 tools such as blogs, wikis, and podcasts.