Foreword

When I was asked to write this foreword for a book on technology use, my mind went back to the days when I was doing the literature review for my dissertation study. I remembered how a report published in 1995, by the now defunct Office of Technology Assessment, discussed how important it was for teachers to make "the technology connection." In fact, rereading that resource I found a citation to a report published in 1986 with the title *A Nation Prepared: Teachers for the 21st Century*; obviously, we were already trying to get ready for "the 21st century" and the kind of teacher, learner, and school that it would require. After almost two decades, and now *in* the 21st century, we wonder if most teachers have been able to make that technology connection to educate the new workforce. But, to be fair, we should wonder not only if teachers have been able to make that connection but if faculty in teacher preparation programs at higher education institutions have also made that connection. Unfortunately, it seems that we still have a long way to go to finally and truly establish the so much sought after link to technology.

Just to mention a few facts, we know that many K-12 schools, especially those situated in inner cities, ban the use of cell phones, music players, video games, even an open Internet connection. At least in the last fifty years, the school curriculum has not changed much even when technology and science have advanced by leaps and bounds; in fact, our students are learning outdated facts from textbooks even if the books are brand new.

In terms of teacher preparation programs, there is a nagging obstinacy on training educators to become the experts and center of the classroom; the complement of this equation is clearly to hold the view of students as the expert-less. In schools across the nation, and in the name of accountability, schools maintain an inflexible, one-size-fits-all curriculum that emphasizes memorization, outdated knowledge, and standardized testing that are irrelevant to most of the students and their future. Finally, in many classrooms, teachers still resist letting their students use new (and sometimes old) technology because they themselves lack the ability to do it – as if this would stop students from making full use of the devices.

Marc Prensky, in an article published in 2008, summarized the feelings about schooling that our students hold. In that article, he quoted a student saying, "Whenever I go to school I have to power down." Then the author added, "He's not just talking about his devices—he's talking about his brain." It is no wonder that most high school and middle school students report to be bored 50% to 70% of the school day (Prensky, 2008).

Given the wide availability and low cost of cell phones, its ownership is now widespread even among student populations with low socioeconomic means. As it is well advertised by the phone networks and phone manufacturers, many of those telephones are actually mini-computers with capabilities only dreamt about 20 years ago. Different from older generations, the cell phone is not used to talk but mostly to connect to others via text messaging and Internet postings on networking sites. The young generation leads a connected, up-to-the-moment life with multi-modal identities and abilities. As a corollary, we cannot expect today's students to learn the same way we did when they are experiencing virtual worlds, individually designed multiple identities and looks represented by avatars, and keeping open communications and collaborations with people halfway around the world–people whom they have never met in person–as part of everyday life. If we stop and think of all these experiences that happen *outside* our classrooms, by necessity we need to ask ourselves: Is our education system still relevant to our students? Even more important: is our teaching style still relevant and effective to our students?

So, how do we teach the 21st century student? How do we prepare future teachers and provide professional development to existing ones to educate for this century? The answers to those questions are many and varied. However, we know that the only way to keep this country's world leadership is through a well prepared workforce, a workforce that is conversant with technology to develop innovation and creativity; to accomplish it, we need to challenge the structure of PK-12 education to allow those values to sieve through the curriculum. A good start to this challenge is to recognize that teachers need to be the facilitators of deep inquiries in their students' minds–not the holders of all knowledge. Teachers need to make the pedagogical connections among the students, knowledge, and technology; they need to teach their students how to retrieve, organize, evaluate, assess, and categorize information. In order to create these inquiries, curriculum cannot continue to be the "one size fits all" of the past but it will require being as personalized as our students' interactions with technology; it will require that students are the co-designers of their learning experiences. In the end, the full integration of technology in education will happen regardless of the teacher–or should we say, in spite of the teacher, when our students cannot finally "power themselves down" to go to school. A clear issue that we need to question *now* is whether teachers are able to take full advantage of the technology and their technology-savvy students to maintain the global-edge of the US.

A good tool to continue to sharpen our pre-service and in-service teachers' technology skills is the use of vicarious experiences as the ones presented in this book. The varied repertoire of case studies with situations faced by teachers, and for which there is little or no training in teacher preparation programs, is invaluable; the questions presented before the case studies focus the reader's attention on the details of the case and then place him or her at the center stage of the situation, while the questions presented *after* the case study facilitate troubleshooting to come up with the best possible response. This vicarious experience will allow future and present teachers to anticipate similar situations and how they can make the most out of each one. An excellent characteristic of the book is that it does not stop with the "how-to" of using technology in the classroom but also engages the reader in ethical and cultural issues, assessment, classroom management when using technology, and teacher professional development.

Finally I came to this conclusion: I am not writing a foreword for a book on technology use; I am writing a foreword for a book on how to be a teacher that happens to use technology to engage students who otherwise are mostly disengaged–the inner-city students.

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