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:) in the digital age

Marilee
Sprenger



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Dedication

This book is dedicated to the memory of Kindra Buchanan McLennan who bravely shared her story of life and death with the world through her blog. She hoped that by reaching out on a global level she would help other young women who face the battle she so valiantly tried to win. Her spirit remains with all those who knew and loved her.

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To Marnie, my daughter, and Thabu, my son-in-law, you are global learners in many ways. As members of the Net Generation, you characterize the necessity of globalization as you work with people and family all over the world from your digital devices.

To my grandchildren, Jack and Emmie, you are part of Generation Next. Although you are too young yet to be dabbling digitally, you have watched your parents, aunt and uncle, and grandparents as we have defined ourselves in technological ways. It is an honor to be a part of your lives and watch you grow. We can talk about you becoming firefighters, doctors, senators, or professional athletes, but your lives

will be much different from life as we know it today. My work is to ensure that each of you is received at your schools as a whole child and that somehow we create personal education plans to prepare you for the rest of the 21st century and beyond.

To Carolyn Pool and Scott Willis from the book acquisitions department at ASCD, thank you for your encouragement and your enthusiasm about this book project. I have always enjoyed working with you both. The amazing work of Deborah Siegel and Leah Lakins cannot go unnoticed. Thanks for doing such a great job editing my book.

And finally, to the digital natives who have made the world a better place and who take the time to teach us digital immigrants how to survive and thrive in a global world. Thank you for being my teachers.

Introduction

I am doing some research and ordering a book from Amazon.com that contains a review of several studies I need for my project. I am tempted to check the box for one-day shipping so I can have the material in my hands by tomorrow evening. I think to myself, “What the heck! Another \$3.99 and I can continue my work in 24 hours.” I willingly decide to spend the extra money on shipping, enter my credit card information, and hit the “Place my order” button. Without delay, I am sent to a “Thank you for your order” page that presents me with a confirmation number and assures me that I will receive an order confirmation via e-mail within 24 hours. (In fact, in seconds I hear a click, and a “You’ve got mail!” message comes through my speakers loud and clear.) I decide I do not need to print this page as my e-mail confirmation has arrived and will contain the information I need to trace my order. In reality, I have an account with Amazon, as many of you do, and with my handy screen name and password I can track all of my orders, print out receipts, and keep track of my expenditures with the company. Isn’t technology great?

I am about to leave this page when I notice an interesting option. If I am interested in reading this book *right now*, I can read the book online for a mere \$7.95. It will

be in a format that makes it impossible for me to print, but I can get a jump start on my research. How clever of them to offer this to me *after* I have paid \$40 for the paperback book! However, I am always in a hurry, curious about the research, and obviously not very prudent about expenditures, so I eagerly press the purchase button again. Within seconds, my credit card is charged and I am reading current information on a topic I will soon be presenting at a conference.

Cool! I have paid extra money to get my hands on . . . well, not really my hands; and this part makes me uncomfortable with my resource. I love books. I love to read. I greet and handle my books in a loving way. I'm one of those crazy people who love to look at the cover, the spine, and the back of a book. I check out the index before the table of contents. I sometimes peruse a book from back to front. I smell my books. This is not a fetish, nor am I kinky in any way. Some of you, like me, are baby boomers; we remember the smell of freshly printed books. They aren't quite the same anymore with the new processes printers use, but old habits are hard to break.

So here I am, looking at my book on a screen. I can't smell it or feel the cover beneath my fingers, nor can I get out my highlighter and mark the essentials I am seeking. As my eyes scan the print on the screen and I scroll from page to page, thoughts are quickly entering my memory and leaving just as fast. "Oh, that's important; I'll remember to find that tomorrow when the real book arrives. Shall I take notes? Too much trouble when it will all be at my beck and call tomorrow. What interesting information! I need to underline something. I need to stick a sticky note here and there. I'd even fold a corner down if I could." (Book lovers, I know this is a sacrilege, but I am feeling desperate.)

My brain tries hard to fit in to the techno era. I can use my laptop like a pro in many ways. I own two iPods. I use a Smartphone, which, by the way, is much smarter than I am! I gave up my paper calendar years ago. But a book . . . a book is another story altogether. A book comes alive when I hold it in my hands, when I smell it and mark in it. I get to write my name in it. I doodle, draw arrows, make stars, and I take notes in the backs of my books. Is there something wrong with my brain that I so dislike this process of reading a book on a screen?

My students and my children have no problem reading books on their computers or on their Kindles, the digital reader offered by Amazon. They can highlight on

their Kindles, so I have been tempted to step into that area of digital geography. But I'm not ready. Not yet. And my brain isn't either.

The authors of *iBrain* (Small & Vorgan, 2008) call people like me “digital immigrants,” but I feel more like a digital dinosaur. We didn't grow up with the new technology, so as adults our brains are trying to adjust. Because our brains are so malleable as a result of their neuroplasticity, they will change as we accept the challenge and the excitement of catching up in the 21st century. My son, Josh, is 33, and his sister, Marnie, is 31. Josh is a member of Generation X, the most educated group in history. Marnie's age puts her on the cusp between the Gen Xers and the Net Generation. Sometimes the Net Generation is called Generation Y. For those born from 1998 to the present, we refer to Generation Next, also known as Generation Z. The Net Gens are digital natives who have grown up in this digital era. Nothing scares them about technology. Nothing surprises them. In fact, their expectations are such that this is all very normal. Why read a book any other way than on a computer, an iPod, or a Smartphone? Or watch a television show? Or a movie?

I have a feeling that some of you had trouble following me in that last paragraph. You are wondering what generation you are in. You are wondering if you are teaching Xs, Ys, or Zs. And in your hearts, you hope you are teaching As, Bs, and Cs! Refer to Figure I.1 for some clarification. I know I will!

Figure I.1 Generations of Technology Users		
Year of Birth	Popular Name	Learning Environment
1946–1964	TV Generation (Baby Boomers)	Passive
1965–1976	Generation X	Holds the highest education levels
1977–1998	Generation Y (Net Generation or Net Gens)	Grew up using computers
1999–	Generation Z	First generation to have seen their parents embrace technology as they do

It's time we all met the “digital brains.” They are in our classrooms, teachers' rooms, and boardrooms. They are here to stay, just as brain research is. Instead of focusing on what's wrong with this new era, let's get into the 21st century. We need to use the technology tools, learn the digital dialogue, and understand and relate better to our students. The key to learning is relationships. Many of our students have strong relationships with and through these digital devices. By creating our

own relationships with these instruments, we will build stronger relationships with our students.

Let us not forget, though, that movement, art, music, and play still belong in the classroom. This book asks you to seek understanding, but also balance.

In Part 1 of the book, I tell you how digital technology is changing the brain and discuss what's new and applicable from brain research. In this section, I also explain how some of the brain-based teaching principles apply in the digital world. In Part 2 of the book, I talk about the whole child, learning environments, and the importance of group learning. Part 3 covers music, mind mapping, and memory. In Part 4, I explore the topic of how to try to balance 21st century technological skills with people skills and look at some options for what future learning will be like. Each chapter includes "instant messages" with bits of useful information.

Throughout this book, we will focus on the need for our students to have emotional intelligence, creativity, and the ability to synthesize information to be successful in a world that is changing from an information age to a conceptual age. I ask you to consider the material presented here, whether you are a digital native or a digital immigrant. The brain is changing, and so can you.