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# *Preface*

## **WHAT ARE THE GOALS OF THIS BOOK?**

The goal of this book is to provide school leaders with information and resources to help them lead so that their schools can become effective 21st-century schools. The book suggests ways administrators and other school leaders can use 21st-century technologies to better prepare students for life in the 21st century. One framework we use is the newly refreshed National Educational Technology Standards (International Society for Technology in Education, ISTE, 2009), which provides guiding principles for how school leaders can inspire, advance, and sustain the integration of 21st-century technology in their schools and districts. Toward this end, we offer many strategies school leaders can use for developing their capacity, building their skills, and guiding others to use Web 2.0 technology to meet the educational needs of their 21st-century teachers and students. We believe that focusing on the knowledge, skills, and leadership perspectives that the 21st century requires of school leaders will help them to become more effective school leaders.

Having a vision and plans for harnessing digital technology for teaching and learning is very important due to the needs of 21st-century students and teachers, especially given the continuing need to improve achievement for all students. Technology, particularly the new and mainly free Web 2.0 tools detailed in this book, offers school leaders many ways to support needed changes in student learning and achievement, teacher instruction and productivity, and communication with other stakeholder groups (parents, alumni, board members, and the wider community). In his recent book, *The Six Secrets of Change*, Michael Fullan (2008) details six ways to deal successfully with change, which he says include: loving your employees, connecting to peers with purpose, building capacity, seeing learning as the most important work, being transparent with all decisions, and understanding that systems learn. These ideas about how to deal with change, including rapid changes in the role of technology for educating our youth in the 21st century, provide some of the organizing principles

for this book. We also try to make all aspects of using Web 2.0 tools for teaching and learning transparent by addressing the costs and benefits and doing so in a way that honors the complexity of the system in which school leaders operate.

Of course, the goal of increasing student achievement must always remain at the top of any school leader's priority list. This is a crucial goal for everyone involved in education—teachers, students, parents and families, support staff, and administrators. Therefore, many of the Web 2.0 tools discussed in this book are focused on improving instruction and engaging learners, while others are focused on increasing teacher and administrator productivity. This book offers school leaders important tools for teaching and learning that 21st-century students and teachers are already familiar with but that may not often be used in schools today. As school leaders, we are sure that you want not only to be knowledgeable about the new NETS for administrators, but also know more about teaching and learning tools that will engage your students, help them acquire and practice all the 21st-century skills and content standards they need, and engage them at the same time.

## **WHO SHOULD READ THIS BOOK?**

The main audience for this book is anyone in a position of school leadership, including central office administrators and technology directors, as well as building level administrators, including principals, technology coordinators, and teacher leaders, who strive to be 21st-century leaders in their schools. This book can be used for professional development for educational leaders at all levels, for the ongoing professional development of practicing administrators in an academy class, as a book-club selection for a professional learning community, as a textbook in a graduate-level educational administration program, or as part of any school leader's professional library. This book can be used to find answers to the many "who-what-when-where-why" questions about using Web 2.0 tools that a 21st-century school leader will need to continue to lead successfully. School leaders will use this book to guide them in becoming instructional leaders by developing capacity at the school or district level and for building new skills to be successful in assisting teachers and students to use technology effectively.

## **WHAT IS THE RATIONALE BEHIND THIS BOOK?**

Three significant and intertwined rationales provided the impetus for writing this book. First, as experienced educators who spend a lot of time in K–12 settings every week, as well as teach in higher education settings,

we see that school leaders are under pressure from students, parents, teachers, and employers to promote effective uses of technology in today's schools. Because today's students grew up in the digital age and have never known a world without the Internet, cell phones, video games, on-demand videos, and portable computing devices, school leaders need to consider who their students are and how they are learning. They use digital devices daily, and many often have to "power down" (Prensky, 2001) when they get to school. In that regard, most schools operate as if we are still living in the 20th century. In addition, in a world of globalization and rapid technological change, we believe that schools must enable and require that our students develop 21st-century skills, such as critical thinking and problem solving, communication and collaboration, and creativity and innovation, in order to be well prepared to live and work in the 21st century. However, most administration programs do not prepare school leaders to promote 21st-century skills for harnessing digital technology in their schools. Furthermore, most teachers being hired today are tech-savvy, digital natives themselves. They expect to have access to and be able to use the technology tools they need to help them teach their 21st-century students. Therefore, one goal of this book is to help school leaders be knowledgeable about the tools both students and teachers are using for teaching and learning.

Second, we know that empirical evidence shows that no matter how much preparation for integrating technology teachers receive, unless they also have the leadership of their administrator, they may be unable to successfully use that technology (National Center for Education Statistics, 2000). In fact, Ritchie (1996) determined that administrative support is the most important factor in technology implementation and that without it other variables will be negatively affected. Stegall's (1998) study found that leadership of the principal was a common thread in technology integration success, but this is still a largely unrealized goal. School leaders are not able to implement their school or district technology-integration plans if they do not understand what is involved in this process (Dawson & Rakes, 2003); so, another goal of this book is to increase your understanding in this area.

Third, the National Educational Technology Standards for Administrators, or NETS-A, (Collaborative for Technology Standards for School Administrators, 2001; ISTE, 2009), originally developed in 2001 and newly revised in 2009, were designed to support administrators in leading and shaping the changes required of 21st-century schools. Unfortunately, they had relatively little impact at the time, which may be due to the emergence of No Child Left Behind (NCLB) at the same time these technology standards were announced. Recently, the NETS-A have undergone a renewal process to make them compatible with 21st-century thinking skills (ISTE, 2009). As with the recently revised National Educational Technology Standards for Students (International Society for Technology in Education,

2007a) and for Teachers (International Society for Technology in Education, 2008), the focus of these new administrator standards is on facilitating teacher and student collaboration, communication, creation, and interaction in face-to-face and virtual settings—all 21st-century skills. This book is designed to assist school leaders in actually making changes in their practice, based on these new standards, by providing knowledge about the tools they will need to lead their schools, teachers, and students into the 21st century, as well as by providing best practices in supporting the transformation of their schools into technology-using 21st-century learning centers.

## HOW IS THIS BOOK ORGANIZED?

In Part I of this book, “21st-Century Schools: A New World for Administrators, Teachers, and Students,” we offer two chapters to set the stage and establish the framework for this book. In Chapter 1, “Leading 21st-Century Schools: What School Leaders Need to Know,” we discuss many of the changes that we, our students, and our teachers face in today’s world. We present some new ideas about literacy and learning that are impacting the need for administrators to take leadership and action today in order to transform schools and districts into 21st-century places for teaching and learning. We also introduce several sets of content and technology standards that drive our curriculum today and conclude Chapter 1 with an introduction to the newly refreshed NETS for Administrators (ISTE, 2009). In Chapter 2, “The Digital Information Age: Who Are Our Students and Teachers?” we discuss who our students and teachers of today and tomorrow are and who the next generation of teachers will be. We discuss how digital natives and digital immigrants (Prensky, 2001) differ in their uses of technology, and we detail who the millennial generation is and what 21st-century school leaders can do to work effectively with 21st-century students and teachers in order to lead them successfully.

Part II of this book focuses on “New Tools and Strategies for Teaching and Learning in the 21st Century.” In Chapter 3, titled “New Tools for Collaboration, Communication, and Creation,” we introduce and describe many Web 2.0 tools that are currently influencing the emergence of new literacies: wikis, blogs, podcasts, RSS feeds, Google Docs and other applications, educational bookmarking, photo sharing, digital picture and video editing, tools for surveying, modeling and graphing, VoiceThreads, mashups, and social networks. In Chapter 4, “Other Technology Tools to Consider,” and in Chapter 5, titled “Instructional Strategies for Teaching and Learning With Technology,” we talk more about why these tools are important, ways they can be used for teaching and learning the core academic subjects, and interdisciplinary ideas for integrating them into any curriculum area at any grade level. The uses of Web 2.0 described in Chapters 4 and 5 of

this book are predicated on a postmodern view of learning and teaching described in Chapter 1, so you will learn ideas for using technology for teaching and learning that are quite different from traditional ways seen in many classrooms and schools today. In Chapter 4 we provide content-specific examples of ways technology can be integrated into mathematics, science, social studies, language arts, and other courses. In Chapter 5 we focus on instructional strategies and additional Web 2.0 resources that can be repurposed and integrated into any K–12 content area and used at any grade level. All the ideas we present in Chapters 4 and 5 promote the 21st-century skills of critical thinking and problem solving, creativity and innovation, and communication and collaboration, which is why we offer them as exemplars.

In Part III of this book, titled “Leading the Way,” we examine the role of the school leader in leading change and suggest strategies for leading schools to change and making the best use of technology to promote 21st-century learning and teaching. In Chapter 6, titled “Strategic Leadership: Encouraging and Assessing Technology Integration,” we provide strategies for the kind of professional development needed to support new ways of teaching and learning with technology described throughout this book. Chapter 6 also extends school leaders’ understanding of how innovations spread, describes ways to lead for successful technology integration, and provides a rubric for observing and offering feedback to technology-using educators. We also address strategic planning and the roles that various staff members should play in the efforts to integrate technology throughout all aspects of the school. However, creating 21st-century schools requires more than effort and energy by those who lead, teach, and learn. In Chapter 7, “Increasing Communication to Build Community,” we discuss ways to engage all members of the school community to lead communitywide efforts so that significant stakeholders will understand, support, and promote the goals for 21st-century schools. We also offer strategies for using Web 2.0 tools to improve communication and collaboration within and outside the school. In Chapter 8, “Privacy, Permission, and Protection: Steps to Ensure Success,” we address important safety, legal, ethical, and behavioral aspects of leading a technology-rich school into the 21st century. Everyone is aware that the Internet and other technological tools, for all their potential, may pose challenges in terms of privacy, permissions, and protection of students. This chapter offers information about the legal, ethical, and safety aspects of using Web 2.0 and provides strategies and ideas to assist school leaders in implementing safeguards—both technological and instructional.

We conclude in Chapter 9, “Important Considerations for 21st-Century Leaders: Hard Questions and Answers,” with information on some of the larger issues that must be considered as a part of leading a 21st-century school, including how to overcome the digital divide. We also address how to deal with technologies that will soon become more prominent in our

schools and districts such as online learning, ubiquitous use of laptops, and we suggest how other personal computing devices, including mobile phones, can become tools for learning in the 21st century.

## **WHAT ARE THE SPECIAL FEATURES IN THIS BOOK?**

Throughout this book, we talk about what school leaders need to understand to be able to connect to and communicate with their employees (teachers), customers (students), partners (parents and families), investors (taxpayers), and society as a leader in the 21st century (Fullan, 2008). One feature of every chapter in this book is a bulleted list titled “What You Will Learn in This Chapter” plus a table of definitions for the “Keywords in This Chapter.” These features are located at the beginning of each chapter to serve as advanced organizers to help you know exactly what can be learned in them. Furthermore, throughout this book, you will hear from principals, superintendents, and other school leaders who have saved money, effectively led their schools to integrate technology throughout the curriculum, and increased their ability to communicate with their students’ parents and the community using Web 2.0 tools, including blogs, wikis, podcasts, and more. Look for this in a feature, titled “One School Leader’s Story . . .,” in each chapter. We use these stories to exemplify how your colleagues are already addressing the refreshed NETS for Administrators (ISTE, 2009) as well as to provide you with examples of how other school leaders are successfully using Web 2.0 tools in their schools and districts. At the end of each chapter, we also suggest activities to try, provide links to online videos, and list books to read for learning more about Web 2.0 and leading a 21st-century school. This feature, “Activities to Consider . . .,” is designed to provoke further thought and action on the part of school leaders, and the suggested videos and readings would also be useful for discussion in professional learning communities. At the end of the book, we include a feature called “Resources Cited in This Book,” which provides an extensive list of Web sites that school leaders can share with others who want to learn more about Web 2.0 tools for learning and teaching. We also provide a complete Glossary and list all References at the end of the book.