Introduction

We believe that this book may be the most important professional development book you will ever read! Further, we believe that virtually every teacher, worldwide, should have access to this book. While we admit that statement is perhaps a bit self-serving, it is a fact that the topics discussed here, the specific, step-by-step guidelines for using technology tools in the classroom, and the teaching tactics presented below are drastically changing teaching today (Bender & Waller, 2011). Further, almost all teachers realize that they must update themselves constantly within the pantheon of these ever-evolving tech tools, in order to remain relevant and effective in the classroom.

Not only are these tech tools facilitating better delivery of information, they are changing the very fabric of the teaching and learning process in a fundamental sense, as students become creative developers of information rather than merely passive consumers of information (Wilmarth, 2010). For that reason, if for no other, we believe that every teacher simply must join this technology revolution quickly. This book can help you do just that.

Almost all teachers realize that they must update themselves constantly within the pantheon of these ever-evolving tech tools, in order to remain relevant and effective in the classroom.

This is a book for those who have been somewhat reluctant to embrace technology in teaching, a book for principals to give to their faculty members who have let other teachers take the lead in tech applications. This book will help make the transition into teaching with technology relatively painless, though we do not use the term *easy!* We have chosen to describe tech tools here that represent first

steps into tech-based teaching and that can be implemented by an individual teacher, rather than more broadly based tech tools that are typically implemented by schools or school districts. For example, we have chosen not to describe an entire class of tech tools that are collectively referred to as "class management systems" (e.g., Moodle or Schoology). While those tools effectively combine many of the individual tech tools discussed herein, they are generally subscription service tools that involve entire school faculties rather than individual teachers who are just beginning their tech journey.

There will be some work involved here, but we believe that we can demonstrate that this is well worth the effort. We give four very specific, first-step recommendations below that can be implemented by any teacher who is currently using e-mail. As that statement indicates, this book is not for the techno-oriented on the faculty but for other, less tech-savvy teachers. As we point out below, there are many reasons that teachers haven't implemented technology in their classes, and in that sense, this book is for us all.

Technology is in the process of drastically changing the teaching and learning process.

We should note that, as this book was written in 2012, many teachers found themselves struggling to keep up with the tech tools for teaching, tools that other teachers were using daily (Bender & Waller, 2011; Ferriter & Garry, 2010). Of course, by 2012, many schools had already undertaken the goal of making Internet-based learning a primary feature in each classroom. Some schools purchased laptops for all students, while other schools purchased less expensive iPads or other tablets (Pemberton, 2011). Today, schools that are not already wireless are struggling to become so, and almost all educators realize that tech-based instruction represents not only learning for the future, but a true, life-long learning option for today's students (Bender & Waller, 2011). For that reason, the National Educational Technology Standards issued by the International Society for Technology in Education (www.iste.org/standards.aspx) stresses technology applications for virtually all classrooms, and the Common Core State Standards that have been adopted by forty-six states (as of 2012) likewise include a heavy emphasis on 21st century technology throughout the instructional process.

Each week seems to bring new announcements about a new tech tool for education. For example, the Apple Computer Company announced in January of 2012 that they were partnering with several textbook publishers to foster production of e-book textbooks, and that innovation alone promises to drastically change education within the next five years. The advent of

social networking is also influencing classrooms around the world as teachers seek ways to use the modern mobile networking technologies such as Facebook or Twitter for teaching. These tech tools are causing a true revolution in instruction, and most of these tools didn't even exist five years ago (Pemberton, 2011; Richardson, 2010; Winn, 2012).

Isn't Everyone a Lower-Tech Teacher?

While this book has been developed with "lower-tech" teachers in mind, there are tactics and teaching ideas presented herein that will appeal to many current technology-oriented teachers as well. In fact, technology is evolving so fast that virtually all teachers can benefit from ideas on interesting technology applications. In some sense, virtually everyone in education today may be considered a lower-tech teacher! One would have to work virtually full time in order to implement, or even remain cognizant of, all of the tech tools for instruction out there! While almost all teachers are technology savvy to some degree, many freely acknowledge that they are not as current in using these quickly developing tech tools as they could be. Of course, one reason for this is obvious; if a school does not have Internet or widespread wifi capability, there has been little reason for teachers to begin using these emerging tech tools for teaching. In short, the infrastructure in many schools has not been sufficient to support these tech-based instructional innovations. How can one assign computer work when computers are not available in the classroom for each student? How can one assign research on the Internet when connectivity is not yet available? How can a teacher use a webquest, a wiki, or cloud-based educational services (all of which are described below) when students do not have access?

In fact, many teachers today are lower-tech, not because they don't use these modern tech tools, but because of the limited availability of them in the school. We have discussed this very issue with many teachers who freely admit that they use fewer tech tools in their teaching than they do in their personal lives! Many teachers use e-mail, Facebook, a blog, or a Twitter account, but they have not had a good opportunity to apply these tech tools in the classroom because of limited

If a school does not have wifi capability, there has been little reason for teachers to move into using many of these emerging tech tools.

wifi or limited computer availability for students. Thus, many teachers have not yet explored the use of tech innovations, some of which have been around since the mid-1990s!

A recent national survey indicated that teachers wanted access to more technology in their classes (Quillen, 2012). In fact, even teachers who had some access to computers in their own class indicated a desire for increased technology options to meet the instructional needs of their students. In that sense, many teachers are lower-tech teachers and have not yet explored the rich instructional options that modern tech tools can provide.

To illustrate this point, the senior author of this book asked about the use of webquests among faculties from three different schools at three different workshops in the fall of 2011. Webquest is a tech tool that has been around since 1995 and is frequently used in many classrooms. However, we found that many teachers have never even used that instructional tactic. Faculty size among the three schools averaged fifty-five teachers, and in each case between two and four teachers indicated that they *had* done a webquest with their students. This admittedly unscientific information suggests that around 8 percent of these teachers were using this tech tool in their instruction, though virtually all of these teachers used e-mail in their communications with other faculty, administrators, and parents.

> While a number of excellent professional development books on tech-based instruction are available, the vast majority of these books are written for cutting-edge, tech-savvy teachers—teachers that live and breathe technology!

One teacher who had used this tech tool found it necessary to reserve the computer lab at her school for that activity. She then had to move her class to that location, while displacing the computer teacher and the computer lab class for that period! It is easy to understand why many teachers have not tried these exciting teaching tools as yet.

However, there is yet another problem for teachers who want to use these tech tools in their instruction—the use of tech jargon that only tech-savvy teachers might understand. Further, much of the professional development literature on tech tools is likewise overly dependent on such jargon, and this leaves lower-tech teachers out in the cold. Terms such as *Web 2.0, social networking,* and *wikis* are unknown to some teachers in situations in which web access has been limited.

Further, while a number of excellent professional development books on tech-based instruction are available, the vast majority of these books are written for cutting-edge, tech-savvy teachers—teachers that live and breathe technology! These books are not generally intended for the lower-tech teachers who are just beginning to use these tech tools, and the jargon itself becomes a barrier to tech-based teaching.

This book is intended, not for the tech-savvy teacher who has widely explored any and all tech-based instructional options, but for the lower-tech teachers, almost all of whom use technology daily in their personal lives and realize they must soon begin to teach with these tech tools. We wanted to develop a more helpful book that carefully explained the jargon and the tech-teaching issues, specifically for these lower-tech teachers. To put the matter simply, that's exactly where most teachers are on tech-tool implementation in the classroom. This book is intended as a practical, useful guide for them. In short, if a teacher can do e-mail, he or she can implement many, if not all, of the tech tools discussed here.

This book is intended, not for the tech-savvy teacher who has widely explored any and all tech-based instructional options, but for the lower-tech teachers, almost all of whom use technology daily in their personal lives and realize they must begin to explore these instructional options.

What If Our School Can't Do It Yet?

My school doesn't have wifi in my class yet!

We have wifi, but I don't have the computers I need to put my whole class online!

I've decided to let the teacher in the computer lab handle that!

We've heard all of these comments and more on why teachers have not moved into tech-tool teaching. First of all, we want to note that it is certainly

reasonable of teachers to note the problems resulting from limited wifi or limited Internet capable devices. Further, it is also fair to point out that the vast majority of students are learning in most classrooms without using these newly emerging tech tools. Given these realities, teachers might wonder, "What if our school can't do this yet? What can I do?"

Here are several points to consider. First, on the availability of wifi, schools across the United States are rushing to upgrade wifi availability throughout the building. In contrast, Canadian teachers often report that their schools are somewhat ahead of schools in the United States in terms of access to the web. Of course, concerns related to limited Internet access are likely to decrease each year, as more schools prepare themselves for wifi capability. However, even without wifi, teachers have some options for using these tech tools. Moving to a classroom where wifi and computers are available is one option, though admittedly a cumbersome option, as discussed above. However, we've run into some other, more creative solutions that teachers themselves have generated. One teacher used her own smartphone as a mobile "hotspot." Some smartphones can serve as a wifi hub for up to five computers or iPads, and depending on the data plan that a teacher has, this might involve little or no additional cost. This might be an option to consider for occasional tech-tool use, at least until wifi is available schoolwide. It is also possible for individual schools to build several such wifi capable phones into the budget and share them among teachers.

Another option for using these tech tools involves the simple idea of giving students more time on tech-based assignments. Some teachers are making webquest, wiki, or other tech-tool assignments merely by giving the assignment and allowing several days to complete the work. Students can then access the required technology in the computer lab at school between classes, in the school media center, at a local library, at home, or simply by using a relative's smartphone.

We discussed this very idea with one teacher whose class had neither computers nor wifi capability. She used this "multiple-days" option by requiring students to access computers elsewhere to complete their work and then e-mailing the assignment to her. When asked why she did that, she gave a thought-provoking and compelling answer—"I cannot let the school's wifi limitations limit the future of my kids!" That answer is telling. Why indeed should teachers let school limitations negatively impact their instruction and the future learning options for their students?

Another option that many schools across the nation have initiated is the BYOD option: Bring Your Own Device! Schools simply request that students bring a wifi capable device to school with them, and then schools supplement those devices with some additional laptops or tablets in the classroom as the school budgets allow. Schools that have initiated this are witnessing dramatic increases in student engagement and academic achievement when they merely

encourage students to bring their own device for Internet access (Wagner, 2011; Winn, 2012). In these cases, anything from a smart phone to a laptop will do, and when assignments are made in class, students can "double up" and share the devices that are available.

> "I cannot let the school's wifi limitations limit the future of my kids!"

In short, we would like to both honor and recommend the position stated so clearly by the teacher above—*Don't let school limitations limit learning for your students.*

Why Should I Implement Technology Now?

Given the time-crunch realities that teachers face daily—the need for more planning time, hours and hours of grading students' work, and so on, some teachers may still wonder, "Why should I implement this stuff? We do have a computer lab or a required computer class, so why should I make that effort in my science, history, or health class?"

The basic answer is simple; students learn demonstrably better when modern tech tools are used regularly and are well integrated throughout the curriculum. Evidence has indicated that tech tools increase students' engagement with the content, their excitement about learning, and ultimately their academic achievement (Barseghian, 2011; Cook, 2011; Keim, 2012). While much of the evidence is anecdotal in nature, the evidence is mounting that these tech tools work.

We strongly recommend that every educator view a 2010 PBS show called "Digital Nation" (Dretzen, 2010; available online from the PBS show *Frontline* at www.pbs.org/wgbh/pages/frontline/digitalnation/view). In that video, Principal Jason Levy, the administrator of a troubled school in the South Bronx of New York City, reported that laptops helped his students tremendously. Attendance went up, school violence went down, and reading and math achievement both increased (30 percent and 40 percent respectively) once students were provided with laptops and teachers integrated them into their instruction. While other research has not shown such impressive results resulting from use of these tech tools, the bulk of the evidence does suggest impressive achievement gains when tech tools are well integrated into the curriculum (Bender & Waller, 2011; Keim, 2012).

However, the *well-integrated* phrase in that conclusion is critical. Merely having computers or iPads in the classroom is not enough to increase achievement. These tech tools and the instructional methods they facilitate must be

well integrated into the class; they must be used as fundamental components of the class on a regular basis in order to positively impact students' lives. Of course, that application of these tech tools usually requires and demands the informed judgment of a qualified teacher. In short, the teacher is still the most important single factor in student learning, and it is up to the teacher to integrate these tech tools into the curriculum in a meaningful fashion, in order to get the impressive achievement gains noted above.

It is clear that modern technologies are drastically changing the world in which today's students live, and this will inevitably impact every teacher's class (Bender & Waller, 2011; Wilmarth, 2010; Winn, 2012). Still, it is very easy to be overwhelmed by the vast array of instructional technologies today because new tech tools are evolving so quickly. This book is intended to erase that sense, and make the move into tech-tool teaching a bit gentler. Still, one thing is clear; our world is fast segregating itself into those that use these technologies daily for learning and those that don't. This is often referred to as the *digital divide,* and no educator would wish to condemn students to a life on the wrong side of that divide.

> Students learn demonstrably better when modern tech tools are used and are well integrated throughout the curriculum.

To further emphasize how important the use of these technologies are in education, one need only consider that the nation of India, in October of 2011, developed a tablet (somewhat comparable to the early iPads) that can be sold to the general public for the equivalent of $39! What happens economically in our world if every student in the nation of India, the second most populous nation on the planet, becomes educated completely within the digital world, while many students in the United States and other nations are not? Who then, will be on the wrong side of the digital divide?

It is now an iron-clad certainty that students of the 21st century will be using all of these tech tools to interact with their world, and educators would be remiss if we do not provide instruction within this tech-tool framework. To put the matter simply, teachers must embrace these modern tech tools for teaching in order to provide the best possible instruction for our students. Choosing not to do so is no longer an option, and the good news is that almost all teachers realize this.

Today, teachers are rushing to prepare themselves with these tools. Many schools are already using digital media and social networking sites to join the world of their students, and this tends to make the curriculum both more relevant and much more interesting to 21st century students (Rapp, 2009). While

research on application of these tech tools is briefly summarized in many sections of this book, research is not the primary focus here. Rather, practical application tips and step-by-step guidelines for specific tech tools are the main focus. Again, we owe our students the best instruction we can provide for the world in which they will be living two, three, or four decades from now. The only way we can do that is by embracing the use of one or several of these tools immediately, and then moving into others as our comfort level grows. This book provides enough tactics such that it will help both lower-tech and tech-savvy teachers do just that.

C2S2 Kids and Their Learning Expectations

One additional answer to the question, "Why should I do this?" is critical for teachers to understand; students learn differently today than previously. In fact, many experts have recognized these different learning strategies and student expectations, differences that have become prominent only within the last decade (Barseghian, 2012; Bender & Waller, 2011, Richardson, 2012; Waters, 2011). Each of these fundamental differences is related to the ongoing technology revolution. Here are four major learner characteristics of kids today:

- Students today learn differently and thrive in collaborative learning.
- Students today create content rather than consume content.
- Students today choose to invest significant time in a virtual, digital social environment.
- Students today are self-directed in that they wish to choose what to study, they want the option to learn on their own, and they absolutely insist on using technology in their learning.

As a form of shorthand for this changing learner, we use the concept *C2S2,* an acronym that stands for the four major characteristics of (some might say requirements from) today's learner.

C2S2 Kids are:

collaborative,
creative,
social, and
self-directed.

Once teachers understand these four basics about the changing learners today, educators can begin to get a more substantive handle on how teaching is changing. We have highlighted these points and these will form the basis of much of the discussion of various tech tools in the book, but the importance of these new student learning modes cannot be overstated. C2S2 kids really do learn differently and have different expectations of the learning environment.

First, students have demonstrated by their participation in social networking sites that they crave social, collaborative learning opportunities. A variety of tools have been presented herein to help use that desire for collaborative work as an educational motivational tool, and teachers must seize this amazing opportunity to increase the engagement of students with the content to be mastered. Should we miss that opportunity, we assure our own irrelevance in the eyes of our students. Further, in the workplace of the 21st century, collaborative skills oriented around specific tasks will be the defining element, and our classrooms today must reflect that.

Next, students are creating content today, rather than merely consuming information (Bender & Waller, 2011). In that sense, the 19th century model of instruction (i.e., students come into classrooms where teachers pour knowledge into their heads, which students then regurgitate on memory-based assessments) has given way to opportunities for students to create information and solve real-world problems. The creativity of millions and millions of students worldwide represents a vast, wholly untapped resource of thought that can now be directed at fundamental, real-world problems. In fact, that is the very basis of project-based learning, focusing students' collaborative creativity on real problems to seek real solutions that can then be applied in the real world (Bender & Waller, 2011).

Students today are creators and publishers of information (Waters, 2011), and in some cases that student-generated information can become important information for future students to review. Further, the growing emphasis on tech tools in the context of project-based learning focuses directly on students using modern technologies while solving relevant questions that they find highly motivational and addressing real-world problems and issues (Bender & Waller, 2011). Today, and for the future, students create content rather than merely consume content; one can only stand in awe of what the creative capacity of millions upon millions of students might bring, but lest we forget how creative young kids might be, we must remember that both Microsoft and Apple were essentially created by a group of "kids working in their garage"!

Next, teachers should understand that the social expectations of today's learners go far beyond collaborative work in the classroom. Even when students are not collaboratively working on a task, they crave today the opportunity to socially engage in discussions of their learning.

Students spend nearly unimaginable amounts of time in the digital, social environments of Facebook, Twitter, and many other social networks, and this desire for virtually unlimited social interaction can and should be harnessed as a powerful educational force. Teachers today simply must begin to use this force in order to reach our students.

> The growing emphasis on tech tools in the context of project-based learning focuses directly on students using modern technologies while solving relevant questions that they find highly motivational and addressing real-world problems and issues.

Finally, students today are self-directed, and that independence is shown in at least three ways. First, they are demonstrating by their very actions that they wish to exercise some choice in what and when they study, and they wish to employ technology in virtually all aspects of their lives (Barseghian, 2012). There may be a brewing conflict herein. Today, educators seem increasingly inclined on setting rigorous curricular standards, such as the Common Core State Standards or even technology standards for informational literacy, while at the same time that students are self-directing what content they learn in their webquests, projects, and other classroom activities. While it is too early to tell, this may result in conflict, and we have begun to suspect that the setting of curricular standards beyond the broadest content guidelines might represent a 20th century attempt to guide 21st century education.

Second, many students seem to thrive when presented with the opportunity to study new content independently. The speed with which Khan Academy (see Tech Tool 6) has taken hold of education and the high levels of learning of many students using that tool—students going far beyond their own grade level in mathematics or other subjects—suggest that self-directed learning may be critical in the future of education. Educators should anticipate an explosion of open-source programs such as this, in an array of subject areas, within the next few years, and we would do well to implement these free programs. More so than any other tech tool, these can unleash the learning power of students worldwide.

Third, students are self-directed today, in the sense that they absolutely demand the use of technology in the classroom. According to Waters (2011), students from a number of schools in lower-income neighborhoods showed up at a recent meeting on technology in education demanding access to the

same technology options as students from more affluent schools (Barseghian, 2012)! They held up cell phones and pointed out the lack of technology in their own schools. Barseghian (2012) provided a couple of quotes from students at that meeting that are quite telling:

> *How are we supposed to use technology responsibly if we don't use it at all?*
>
> *We're going to use technology to start a revolution, to improve our lives, and the lives of the upcoming generations, to get our voices heard.*
>
> *I demand that my peers and inner city school kids have a fair chance at life, furthering their education like privileged communities. Give us the resources we need. Because there are children like me who do give a damn about our future.*

Wow! Wisdom from the mouths of babes! Is there any educator alive who would not wish to respond to this reasonable, justifiable student demand for technology in our classrooms today? This book is intended as a nonthreatening effort to help teachers respond to these new student expectations! We intend to lead you, step-by-step, in this exciting process.

How Is This Book Organized to Help Me?

While literally hundreds of tech tools could have been included in this book, our intention is to make the transition to tech-based teaching a bit easier and more understandable for teachers. With that in mind, we'd like to describe the organization of this book and, in that context, make some suggestions on how teachers might use this book. First of all, the first four tech tools (web access, webquests, blogs, and wikis) are, in our view, essential in the classroom today, and we recommend that each teacher read those sections and implement those ideas. After teachers experiment with those tools for some time, they may wish to skip around a bit and explore various areas. Each of the twenty tools is defined at the outset, so teachers can quickly get an at-a-glance look at what a specific tech tool or application does, and if that is not of interest, teachers should skip it and select something they may find more useful given their subject area. Also, there are several more explicit suggestions for using these tools in the final section of the book, and we do urge all teachers to read that last section.

The tech tools are grouped into general sections, based on what we believe to be their main function in the classroom. The "basic four" tools we mentioned above are presented first in this book. Next, we present a series of six tech tools (Tech Tools 5 through 10) that facilitate increased student engagement with the subject content, and thereby foster anytime, anywhere

learning. These tools will tend to make study topics more engaging and thereby increase student achievement.

Next, we present a series of eight tech tools (Tech Tools 11 through 18) to foster students' creativity, including tools that help students develop their work collaborative, and subsequently publish their work to an audience that is much wider than merely their own classroom. Finally, we present two tech tools (Tech Tools 19 and 20) that facilitate social networking and the formation of learning networks among students. Of course, in many discussions of specific tech tools we identify and briefly describe similar tech tools, even though those additional tools are not described thoroughly. In that sense, teachers can use this book and glean insight into many more than twenty tech tools. Here is a schematic of the overall organization.

Four Tools to Start With

Tech Tool 1—Web Access, Laptops, and Mobile Devices
Tech Tool 2—Webquests
Tech Tool 3—Blogs
Tech Tool 4—Wikis

Tools for Student Engagement and Empowerment

Tech Tool 5—Cloud Computing
Tech Tool 6—The Flipped Classroom and Khan Academy
Tech Tool 7—Wiffiti
Tech Tool 8—Jing
Tech Tool 9—Gaming, ARGs, and Virtual World Instruction
Tech Tool 10—Diigo

Tech Tools for Student Creation and Collaboration

Tech Tool 11—Glogs
Tech Tool 12—Podcasts
Tech Tool 13—Scribd
Tech Tool 14—Comic Life
Tech Tool 15—Google Apps
Tech Tool 16—Vokis, Avatars, and Animation!
Tech Tool 17—Vlogs
Tech Tool 18—Animoto

Tools for Social Learning and Networking

Tech Tool 19—Facebook
Tech Tool 20—Twitter

The Teaching Revolution and a Brave New World for the 21st Century

Finally, the list above shows how, in our opinion, these twenty tech tools may be best understood, and how they are generally related to each other. However, we must point out that many of these tools have multiple application options, and for that reason, many of these tools could have been placed in more than one of these book sections. Again, after the introduction and the first four tech tools, teachers are encouraged to skip around and find the tools that they are most interested in.

Small Steps Begin Epic Journeys

Begin Today!

We've all heard the adage that epic journeys begin with small steps, and that is absolutely true as teachers move into using tech tools in the classroom. This book walks teachers through their initial "small steps" in using tech tools in the classroom. For teachers that are beginning this journey, we recommend three specific tech tools in the next section that have been around for a while. For other, more tech-savvy teachers, we present some of the more recent, more innovative tech tools later in the book. Teachers should feel free to skip around, selecting the tools they would like to try.

Learn the Lingo

As in many new learning endeavors, the jargon, or specific language that is often associated with new things, can become a barrier, and that is as true in technology implementation as in any example we can think of. One illustration of that is the common use of the term *Web 2.0.* The term itself suggests that the web has been somehow redesigned for a new set of teaching applications, but nothing could be further from the truth. Web 2.0 refers to the usage of Internet sites rather than a second generation of redesigned websites. Web 2.0 is a loosely defined term that indicates the use of website for interactive collaboration between students, rather than merely as sites from which students can passively obtain content information. The first several tech tools described below illustrate this concept nicely. As described in the following sections, webquests typically involve students using websites to obtain information for research purposes, whereas wikis facilitate the option of having students collaborate to create information for use by others in the class. In that sense, the wiki would be an example of a Web 2.0 tech tool, and this book will present many others.

Start Small!

We strongly suggest that teachers explore only a few of these tools initially. Teachers should try each tool two or three times in their instructional units, taking several weeks to get used to using them. We do recommend the first four tools for almost all teachers initially, and teachers might begin with those. However, if one of those tools doesn't seem to work for your students, or you are not comfortable with it, then drop it and try another. No teacher should try all of these at once, and typically you will find it much easier to start small! However, every teacher should realize that the application of even two or three of these tech tools will demonstrate the instructional relevance of your subject to the students in your class. In short, using two or three of these tech tools makes you a tech-savvy teacher!

> Web 2.0 is a loosely defined term that indicates the use of website for interactive collaboration between students, rather than merely as sites from which students can passively obtain content information.

Partner Up!

Of course, exploring tech tools that someone else in your school is already using is always a good idea, since that other teacher can guide you as you begin to teach with these tools. If you can find a teacher experienced with the tool you select, invite a partnership with that teacher focused on application of that particular tech tool. Also, check with your school district to see which of these tech tools may be supported by the tech person at the school or district level. Your media center person is also an excellent source for help and suggestions.

Review the Acceptable Use Policy on the Internet

Most schools today (but not all) have a policy on Internet usage by students, typically referred to as an acceptable use policy. Such policies are designed to protect the students, since the Internet itself is wholly ungoverned. Thus these often come in the form of a letter to the parents, describing how

the Internet will be accessed, and discussing what the school will recommend as acceptable Internet use for the students. These policies may be either informative (merely informing parents of Internet usage at the school), or they might require a parent's signature.

In addition, many schools couple these policies with firewalls that specifically block the use of certain websites at the school. In fact, some schools have dated Internet firewalls and policies that block some websites that are now specifically recommended for instruction. For example, various schools have blocked social networking sites such as Facebook and Twitter, even though these can be used as effective modern teaching tools. Of course, these acceptable use policies should discourage social networking between students and teachers, but the recent instructional recommendations for using these networking sites focus on appropriate educational discussions that might be undertaken in this context (e.g., a Facebook page dedicated exclusively to US history, and managed by the history teacher). In those cases, it is now recognized as very appropriate to use social networking sites.

While firewall decisions are typically made by a technology person at the district office, teachers must occasionally take responsibility to assure that administrators and parents are informed about Internet usage. In some schools, parents have already been informed that students will be accessing appropriate Internet sites for educational purposes, perhaps via a paragraph in the student handbook, or a letter on videotaping at school and Internet usage, that is sent to all parents each year from the principal's office. If your school does not have such an appropriate use policy, we recommend that you check with your principal, and then inform parents of your intention to have students online via a simple letter describing appropriate usage.

We recommend placing responsibility for appropriate Internet usage squarely on the students' shoulders, with extensive teacher oversight.

Further, we recommend placing responsibility for appropriate Internet usage squarely on the students' shoulders, with extensive teacher oversight. We recommend this procedure, since such personal responsibility policies usually result in teachers spending some time teaching students a few simple rules about Internet usage. The acceptable use policy letter at the end of this section can provide

you with some guidance concerning Acceptable Use Policies. If teachers use such a letter, they should have both students and parents sign the letter, and then review the letter several times with their students, stressing the guidelines for appropriate Internet usage.

Begin Social Networking!

We do urge teachers, at a minimum, to establish some type of social networking (e.g., Facebook page or Twitter account) for two reasons. First, participation in the digital world (e.g., a Facebook page focused on your class content) will immediately impress your students with your overall relevance. Second, social networking offers many options for important professional development for teachers, as teachers can follow other educators online, picking up teaching tips, or ideas, or notes on articles they may wish to read on various teaching strategies. Such social networking takes virtually no time at all, and it will enrich your teaching! In fact, we usually begin technology workshops for low-tech teachers by having teachers set up a Twitter account.

If you would like, you can use a Twitter account and begin to follow us online (@williambender1). If you choose to do that, we'll be sending you a short message two or three times each week on educational matters, notes on brief articles on teaching that you might want to access, or teaching ideas for you to try. More on that idea is presented in the social networking sections later in this book (see Tech Tools 19 and 20).

Enjoy the Journey!

Finally, do enjoy this journey into the modern world of tech-tool teaching. You should begin the process knowing that your teaching will be impacted in many positive ways. As we indicated above, even limited wifi or limited computers in the class are merely obstacles that can be overcome, and teachers should not wait for schools to become equipped with more laptops, iPads, or wifi availability. By beginning now, you will find your enjoyment of teaching increase, along with the engagement of your students.

In fact, one important payoff for beginning to use these tech tools is your enjoyment of teaching. Even veteran teachers with many years in the classroom—teachers who may be less familiar with these tech tools—typically find that they and their students enjoy these innovative teaching ideas. We've had teachers tell us that these tech tools made the classroom

really fun again, for both them and their C2S2 students! Thus, our invitation to you: Join the excitement today! Enjoy the tech-tools journey!

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Example

An Acceptable Use Policy for the Internet

Your School Name
100 Main St.
Somewhere, Somestate, USA

Date: September 1

Dear (parent's name):

I am excited to be working with your child in my class this year, and I wanted to let you know that we will be using several of the modern instructional tools available on the Internet. Under my guidance in class, it will be your child's responsibility to use the Internet appropriately in order to ensure safe use of this instructional tool. I wanted to inform you of this and recommend the following guidelines for your child's Internet use at home. These will be the guidelines used in my class at the school, and I will teach these to all of the students. Also, I have a poster of these guidelines posted in my room.

Acceptable Use of the Internet

- The Internet is a great tool for learning, but it is totally ungoverned. Therefore, you must use these rules to take responsibility for your own safety in using the Internet appropriately. Here are some general guidelines, and if you have any questions about any location on the Internet, talk with your teacher or your parents and, if appropriate, investigate that location together.
- You should access only informational websites where it is clear who is responsible for the website. It is your responsibility to evaluate the quality of information you get from the Internet, and your teachers will teach you how to do so.
- Never type in your name, your address, your phone number, your picture, your e-mail, the name of your school, or any other personal information that can be used to identify you, unless specifically instructed to do so by your teacher. It will be acceptable, under the teacher's guidance, to type in some of this information on private or "class only" Internet locations such as class blogs, or class wikis.
- If you see sexual content of any sort, or inappropriate language (cursing) used on a website, you should immediately leave that website and report it to your teacher.
- If anyone contacts you via the Internet or e-mail that you do not know personally, you are required to immediately make your teacher aware of that contact.
- Never post pictures of yourself or anyone else, unless the teacher recommends and approves of those pictures in advance. Such approval will typically be granted only for pictures of students completing class projects, and/or field trips.
- Never use the Internet or e-mail or any other digital communication to criticize or embarrass others, either students or teachers. That can be considered bullying, and bullying in any form is not tolerated at our school.

Again, I am looking forward to teaching your child this year. Please let me know if you have any questions on this policy or anything else in my class. I look forward to working with you.

Yours,
Your Name Here