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- Integrate iPads into the curriculum across different grade levels and subjects

Sam Glikzman

Leading technology applications educator



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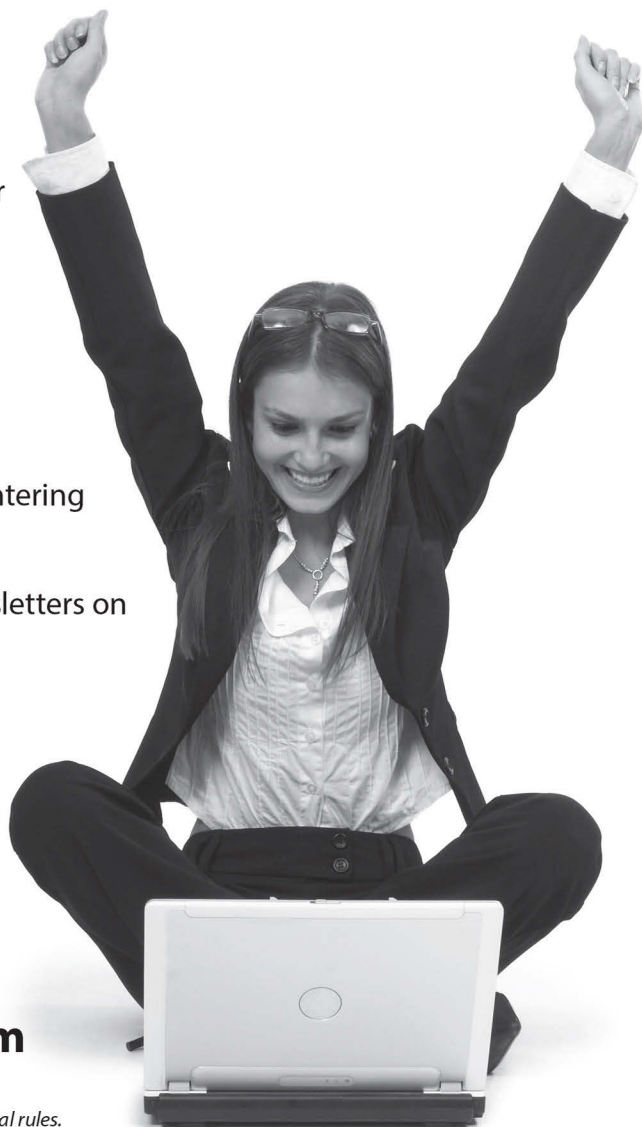
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A Wiley Brand

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by Sam Gliksman

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iPad® in Education For Dummies®, 2nd Edition

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Introduction

Back in 2010, the first iPad was sold at the Apple flagship store in New York City. Its release was heralded with heady anticipation and excitement. Apple had done it again! Although it was not the first tablet computer to hit the market, it quickly became the one to define it. Within a couple of short years, iPad sales into schools have soared above MacBook sales by a margin of 2:1. That demand comes partly from the overall popularity of iPads, but it also stems from the recognition that technology has the potential to revitalize our educational systems.

The iPad and its Mini counterpart are light and easy to carry, intuitive to use, and (best of all) relatively inexpensive. However, be careful about putting the iPad cart before the horse. If we expect the iPad to be an agent of change, it's important that technology use serves our greater educational vision and doesn't become an objective in itself. The only time *computer* should come before *education* is in the dictionary.

Mobile technology can be used to re-envision education. That's the goal of this book. There will be loads of "how to" information in these pages, but along the way, I'll try and address the question of "why" we use technology in class as well. Instead of using iPads to deliver and drill content, we should strive to empower students to create, investigate, and innovate. In doing so, we encourage students to develop the skills they'll require to become lifelong learners who can thrive in our exponentially changing world.

Feeling a little overwhelmed? Don't be. You've already made the first important step by buying this informative and easy-to-read book. Just stick with me, and I will guide you through the wonderful and exhilarating world of iPad use in education.

About This Book

You've seen what kids look like when they handle an iPad. With little hesitation, they jump right in, and, within minutes, they start drawing, reading, or finding some other activity that motivates and engages them. It's their canvas, and given the freedom to explore and express themselves, students can be wonderfully creative and imaginative with technology.

Albert Einstein once wrote, “It is a miracle that curiosity survives formal education. If we are to develop our students’ sense of curiosity, we must be mindful to carve out time to allow our students to inquire and explore.”

This book examines ways we can use utilize iPads to unlock some of those possibilities in educational settings.

Here are some of the things you can do with this book:

- ✓ Learn how to use iPads to address 21st-century skills and literacies
- ✓ Discover techniques to manage a classroom of iPads
- ✓ Learn how to find and purchase apps for yourself or in volume
- ✓ Learn how to use the built-in multimedia tools for digital storytelling and creative expression
- ✓ Discover how to create and blend various media into eBooks
- ✓ Explore ways the iPad can be used to explore, investigate, create, and collaborate
- ✓ Learn how technology can be used to empower and engage students
- ✓ Discover ways other teachers are using iPads innovatively in their classrooms

This book uses a few specific conventions in this text for ease of comprehension. When I tell you to type something (in a box or a field, for example), I put it in **bold**. When I refer to text that you see onscreen, I put it in a typeface that looks like this. Terms in *italic* are defined as they relate to using the iPad in the classroom. And when I provide a URL, it looks like this:

www.dummies.com/extras/ipadineducation

Foolish Assumptions

You know what happens when you assume . . . but as an author, I have to make certain assumptions about you — my readers — in order to target the book at your needs.

- ✓ You either own or are considering buying an iPad. The principles discussed in the book apply whether you have the original iPad 1 through to the latest iPad and iPad Mini. You will, however, need an iPad 2 or higher to take advantage of the advice and directions regarding multimedia use.

- ✔ You are not a “techie.” This is a book about education written for teachers, administrators, parents, and anyone else that has an interest in education.
- ✔ You have access to a wireless Internet connection.
- ✔ You know technology can be used effectively as an educational tool, but you’re just not sure how . . . and the thought of a classroom full of children with iPads scares you just a teensy bit.
- ✔ You’re looking for new and exciting ways to engage and motivate your students.

Icons Used in This Book

What’s a Dummies book without icons pointing you in the direction of really great information that’s sure to help you along your way? In this section, I briefly describe each icon I use in this book.



The Tip icon points out helpful information that is likely to make your job easier.



This icon marks a general interesting and useful fact — something that you might want to remember for later use.



The Warning icon highlights lurking danger. With this icon, I’m telling you to pay attention and proceed with caution.



When you see this icon, you know that there’s techie stuff nearby. If you’re not feeling very techie, you can skip this info.

Beyond the Book

Technology use in education is a huge and rapidly growing field, and it’s difficult to encompass everything within the confines of any single book. With that in mind, I’ve added a few juicy bits for you online. Feel free to browse, use, and share the following content.

✔ Cheat Sheet:

www.dummies.com/cheatsheet/ipadineducation

The Cheat Sheet for the book contains a list of ideas for digital storytelling projects as well as ten wonderful educational games for learning as you have fun playing.

✔ Online articles covering additional topics:

www.dummies.com/extras/ipadineducation

Learn about additional topics by reading the additional articles included on the Extras page:

- Learn how to create and access educational content on any topic using Apple's iTunes U.
- Read about popular tools and apps that can be used for collaborative learning with iPads.
- Browse a list of some of the more important iPad accessories you'll want to consider purchasing for educational use.

✔ Updates: Each *For Dummies* technical book explains where readers can find updates in case the book changes substantially. (For example, the book includes an entire chapter or part on the importance of Facebook Fan pages and then Facebook does away with Fan pages.) Updates will be posted to the Downloads tab on the book's product page. On the book's Extras landing page (www.dummies.com/extras/ipadineducation), an article will either describe the update or provide a link to take readers to the Downloads tab for access to updated content. For programming books, this is where errata will appear.

Where to Go from Here

This book can be read in any order you choose. Each chapter stands on its own and can help you tackle specific tasks. For example, if you have just started thinking about using the iPad in your classroom but don't know where to begin, head to Part I. Your first stop might be to read the table of contents and find the sections of this book that you need at any time.

Part I

Getting Started with the Educational iPad



For Dummies can help you get started with lots of subjects. Visit www.dummies.com to learn more and do more with *For Dummies*.

In this part . . .

- ✓ Examine the evolving educational needs of students in the 21st century
- ✓ Learn the basics about navigating and using an iPad
- ✓ Explore options for deployment and management of iPads in schools
- ✓ Find out how to make volume purchases of apps and eBooks

Chapter 1

Education in the 21st Century

In This Chapter

- ▶ Re-evaluating educational objectives for a world of constant change
 - ▶ Examining how iPads meet the needs of a 21st-century education
 - ▶ Reviewing what this book is — and is not
-

It's nine and a half inches long and less than one third of an inch thick. At less than a pound and a half, it can go anywhere with you. It boasts a crystal-clear display, has a microphone and two cameras, and is a great little device for taking photos and video. Whether you prefer to prop it up on a table or lay it in your lap, just tap a button and you'll instantly connect with people and information anywhere on the planet. Yes, the iPad is the face of modern technology . . . and given the opportunity, technology such as iPads has the potential to revitalize our educational systems.

Investigating New Educational Models

We've come a long way in such a short time. Many of us grew up in an age of relative stability. Personal computing was still in its infancy, and we'd never heard of anything called the Internet. If you wanted to communicate with your cousin in another country, you'd pull out a pen and paper, write a letter, slap on a stamp, and walk to the nearest mailbox. Imagine that! Welcome to the 21st century, where we find ourselves launched into the beginnings of a new era characterized by extreme, exponential change. The fuel that's feeding that change is technology. Computers have evolved from massive machines that weighed several tons and required several people to operate them to sleek, super-powerful, tiny devices that perform incredibly complex tasks and move information between remote locations at lightning speed. Fifty years ago, people were amazed at being able to deliver a heavily abbreviated message overseas with a telegram that might arrive at its destination

a day later. Nowadays, kids complain that email takes too long! The mobile devices we carry around in our pockets today are thousands of times more powerful than those enormous computers were just a few decades ago.

Of course, change isn't a new concept, but it's the amazing speed at which society is changing that takes your breath away. Inventions such as the telephone and radio took generations to become common household items, yet after just a few short years, iPods, iPhones, and iPads have sold several hundred million units. A service such as Facebook didn't even exist ten years ago; now it has a user base exceeding 1 billion. We just reached 7 billion people on planet Earth, and there are more than 5 billion cellphone subscriptions.

Re-evaluating educational objectives in a changing world

Technology has changed almost every facet of our daily life — at work, home, and leisure. Given the right opportunity, it can also transform our educational systems; however, our school systems have largely struggled to keep pace. Take a stroll around many schools today, and they look largely the same as they did when you went to school. The problem is twofold:

- ✔ **Lacking technology:** Students lead technology-filled lives outside of school, yet many of them have only minimal access to personal technology for learning within school itself.
- ✔ **Using technology for a 20th-century education:** Simply adding a dose of technology to the standard educational mix may not be enough if that technology is patched over outdated objectives and pedagogies.

The incredibly rapid changes occurring all around us are having a significant impact on the skills students need when they graduate school. Old models of content delivery and frontal teaching — lecturing from the front of the class — aren't addressing the evolving needs of a society where information is available freely and instantly, and constantly changing. The technology revolution that encompasses us has changed all our educational paradigms. We need to consider iPad use within the framework of educational objectives that address the needs of our rapidly changing society:

- ✔ **Replacing rote memorization with real skills:** Skills such as critical thinking, communication, and creativity have increasingly greater value than the rote memorization of content. After all, the vast majority of

content can be easily accessed within seconds on most mobile devices. We've even created a verb to describe it. What do you do when you want to know something? You "google" it!

- ✔ **Navigating the information jungle:** Historically, an important function of education was to provide students with access to textbook content and teacher expertise. Today, content and expertise are abundantly available online. There's so much information available that new educational priorities are needed to help students navigate the vast volumes of content. Information literacy skills help students access, organize, filter, evaluate, and use the enormous amount of information available online. The core question is morphing from "What do you know?" to "What can you do with what you know?"
- ✔ **Working in groups (because there's no *I* in *teamwork*):** We live in an emerging global society, and the development of collaborative skills — the ability to work effectively in teams — outweighs traditional demands that students sit still, listen, and work only on their own.
- ✔ **Incorporating multimedia literacy:** Text remains an important medium for conveying information, but multimedia is becoming the language of new generations, and its use should be encouraged in schools. Further, we need to discuss and develop standards that assist students in creating media that communicate the intended message effectively.
- ✔ **Saying goodbye to the 30-pound backpack:** At higher grade levels, most courses are still delivered and structured around the use of a single textbook — often one that was printed several years ago. That's a stark contrast to a world where news and information are always up to date and available from a wide variety of sources and perspectives.
- ✔ **Reaching beyond the school walls:** School is still the central hub for learning, but technology now enables us to be constantly connected. The old model of learning within the physical confines of a classroom or school campus is being completely redefined. In the age of the Internet, learning can occur anywhere and is available on demand.
- ✔ **Staying flexible is key:** Instruction and curriculum need to constantly adapt to new information, technologies, and interests.
- ✔ **Differentiated instruction and assessment:** Some students are great auditory processors. Explain something once to them and they get it. Others need to sit and read. Many students lean to more visual modes of learning. Technology offers options for differentiated instruction and alternative forms of assessment, which free us from a "one size fits all" teaching model. (And in reality, that model never worked anyway!)

- ✔ **Limiting frontal teaching:** New technologies placed in the hands of students empower them to research, explore, and create. Use of technology can and should move us from frontal, content-delivery models of education to more student-centered, discovery-based, and interactive learning practices.
- ✔ **Knowing that learning never ends:** We're all students who must continually learn and adapt to constant change. School is only part of our educational journey. Instead of focusing on preparation for assessments and certificates, we need to rediscover the joy that's inherent in the process of learning itself. Our objective should be to develop students who are independent, lifelong learners who can continue to thrive in a society of continual and rapid change.

Implementing iPads for 21st-century learning

As Ringo Starr reminded us, "It Don't Come Easy." Adding expensive technology to school environments requires significant budgeting, planning, and infrastructure development and training. With all the investment of money, time, and effort, it's even more important to focus the use of technology on critical 21st-century learning goals. The iPad is well equipped to meet those educational challenges.

- ✔ **Learning on the go:** An iPad weighs less than a pound and a half and is well suited to the goal of "anytime, anywhere" education. You can take it with you wherever you go. Store it easily in a bag or backpack, or just carry it on your person. Plus, the iPad's battery has up to ten hours of life, so you won't have to deal with cords and electrical outlets. Charge your iPad overnight, and it will be ready and available all day long.
- ✔ **Kicking back and relaxing:** Use your iPad any way that feels comfortable. There aren't any annoying upright screens forming a barrier between teachers and students. It's easily passed around when used in a group setting. Turn it on easily while sitting, standing, or even when lying down (although don't say I didn't warn you that keeping your iPad next to your bed will make it extremely difficult to get up on time in the mornings)!
- ✔ **Turning on, tuning in:** The iPad turns on with the simple tap of a button. You don't wait long for it to start, and you don't have to log in to use it. It's instantly accessible and can be integrated effortlessly into any activity inside the classroom or outside. Access any website, look up any information, jot down notes and appointments — all within seconds.

- ✔ **Touching and swiping is as easy as A-B-C:** Have you ever seen a small child using an iPad? It's quite incredible how easily children take to the multitouch interface. After all, we grow up manipulating the world around us by directly touching objects: We pick them up, move them, open, and use them. A computer that uses direct touching of its interface is a natural extension of that process.
- ✔ **Accessing the library at your fingertips:** You can purchase, download, and read digital books (see Figure 1-1) right from within iBooks and other book-reading apps on your iPad. Change the display to meet your taste or reading preference. Highlight or underline text, make notes, look up a word definition, and search for anything in the book . . . even use the VoiceOver feature to have the book read to you. The Apple iBooks Store now also includes digital textbooks with interactive and constantly updated content from major publishers.

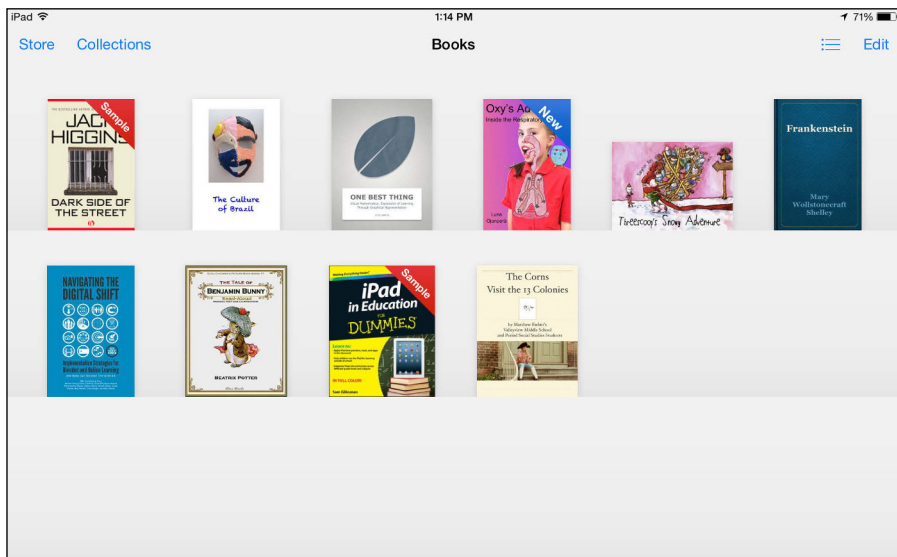


Figure 1-1:
Download
and read
books using
the iBooks
app on your
iPad.

- ✔ **Empowering students:** Put it all together, and iPads have the potential to empower students. It enables them to research and analyze information, connect to people, develop and collaborate on solutions to problems, express knowledge in a variety of media . . . in short, technology empowers students to develop independent learning skills that are essential for success in today's society.

- ✔ **Including everyone through assistive technologies:** With features such as VoiceOver reading, and the capability to change interface colors, fonts, and size of text, the iPad offers a custom and differentiated learning environment that can bend to the needs of individual learning styles. In addition, several apps are specifically designed for people with special learning needs, such as those with limited vision or motor skills.
- ✔ **Focusing on student-centered learning to garner out-of-the-box results:** It's important for educators to understand the potential power of technology use, but you don't need to become an expert. There's a good chance you already have 20 of those tech-savvy students sitting in your classroom. Way too much of our traditional educational models is standardized, scripted, and controlled. The power of using iPads in education is revealed when they're put in the hands of students and we loosen the educational reins. Technology is the language of their daily life, and the magic of using technology in education is when students are given opportunities to use it innovatively to produce creative results that we never predicted.

Moving from Text to Multimedia

You more than likely grew up using reading and writing for most of your learning in school. The invention of the printing press and the mass production of paper completely altered the way we communicate and learn. In fact, the printing press is thought of as one of the most revolutionary inventions of the second millennium!

Do anything long enough and it becomes difficult to imagine that there are other ways to accomplish the same objectives. If you look at schooling at any time during the 20th century, you'll notice that education was built on the consumption and production of text. You learned by reading and you expressed your knowledge by writing about it. Remember those big, heavy textbooks you were expected to read? Many students still have them and drag that 30-pound backpack to school every day just like we did. And most of the work submitted in school is still written the way it was in our day, old-timer.

However, if you stop and take a long look outside the gates of school, you'll see a brand-new world of communication and learning . . . and it doesn't look anything at all like the one in which we grew up.

The world of the 21st century is now awash in colorful, vibrant, and interactive media. Important messages are most often expressed in videos and images. When many of us want to learn something, we often look for video tutorials on sites such as YouTube.

Multimedia has quickly become the language of modern communication. Your iPad has a sparkling display with built-in audio and video tools (iPad 2 or higher; see Figure 1-2) for the creation and use of all forms of multimedia. Use it to take and edit video or photos, record podcasts and class lectures, and create animated presentations, multimedia stories, and more. With embedded cameras, microphone, and wide range of multimedia apps and tools, the iPad is a little multimedia powerhouse that will become as indispensable to our students as our pens and notebooks used to be back in the day.



Figure 1-2:
The iPad 2
or higher
has an
integrated
microphone
and camera.

Asking Why You Want iPads

In his book *Start with Why*, author Simon Sinek claims that we all know *what* we do. You often define yourself by what you do: “I’m a teacher,” for example. You usually also know how you should do whatever you do. People usually develop a routine to make their tasks easier. Very few people or organizations constantly discuss and debate *why* they do something. Only by reflecting on the question of why are we able to develop and articulate a meaningful vision for what we should be doing . . . and that certainly applies to education. Let me explain.

We all have a vision for the ideal education, and it’s highly likely that we’ll disagree on many of its components. There is, however, one common thread that most of us would agree upon. As strange as it may sound, we aren’t teaching children to become good students in school. Yes, you read that correctly. After all, school is simply a transitional stage of their lives. Our objective is to educate and prepare them for life *outside* school. Ideally, we’d like to give them the necessary skills to become happy, productive adults and solid citizens.

When you live in an era of change, asking why helps evaluate whether you are preparing your students appropriately for their lives outside school. It’s a natural tendency for humans to fall into routines, to focus on what we do and how we do it without regard for whether it’s still relevant. Many people continue following the same educational routines and processes without asking whether they are really preparing our children for their lives in an ever-changing society full of technology.

Simply purchasing and using technology to address questions of how we teach won’t advance education. If we buy technology as a means of reinforcing the same old educational processes, then we may be totally missing the point. Here are some examples:

- ✔ Continuing to use lecturing as a primary pedagogical process but using technology to project the documents and presentations rather than delivering material orally or in printed formats.
- ✔ Continuing content-based educational practices by having students read a chapter and answer the questions at the end but allowing them to use technology to submit typed responses.
- ✔ Continuing to stress memorization of facts but using tools such as flash-card apps to help drill the information.

Asking why and looking outside the school walls may lead us to different visions and new directions. Why only focus on text for exchanging information when the world now communicates with a variety of multimedia, and

fluency in media literacy is a valuable skill in the workplace? Why continue using the same old textbooks when we can access updated information on any topic within seconds using the Internet or digital books? Why focus on a static, content-delivery and memorization approach to learning when that pool of content is increasing at unprecedented speed, and it's more important for students to be skilled in finding, analyzing, and using information as they need it? Are we preparing students for tests or are we preparing them for life? We have to ask ourselves "Why?"

Using technology effectively in education requires much more than just having technical skills. Instead, through the use of technology we have the ability to sculpt new educational visions that address the real needs of children entering a new world. It's a fundamental reason for why I am writing this book.

Sharing iPads in Schools

iPads are designed as inherently personal devices. There are no user logins or custom desktops for different users as there might be on a laptop or desktop. Can you start to sense the problem here? Many schools share iPads between classes and students in much the same way they share laptop carts. Laptops can accommodate different user logins and therefore protect individual student data. iPads aren't laptops and can't be used the same way.

Most iPad apps cache your login information. In other words, after you've logged in, they automatically remember your login information and open your data when the app is opened again. The little love letter or risqué rap lyrics that Joey wrote will pop right up on the screen for the next user who opens the app.

A 1:1 environment is where every student gets his own dedicated iPad — and it's unquestionably the preferred model for school use. You'll have to overcome quite a few obstacles if you expect to share iPads between students. iPads just aren't built to be shared. Having said that, there are some considerations that make it a little easier and safer to share them:

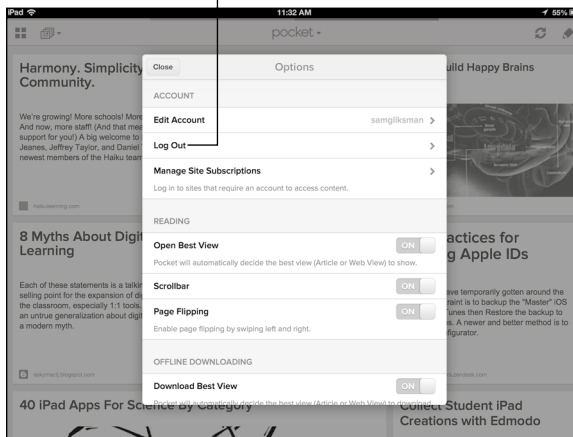
- ✔ **Little kids, little problems. Big kids, big problems.** Sharing iPads at lower grade levels is far easier. There's less data produced and the data tends to be less sensitive. In the upper grades, students may be writing papers and keeping notes that need to be kept private.
- ✔ **Stay faithful to your iPad.** Number your iPads, and keep a list or spreadsheet to make sure students use the same iPad every time. At least that way, students' data should be available, and they're only sharing that

particular iPad with a small handful of other students. Also, anything that goes wrong will be easier to track. You can always sticker the outside of the iPad with a number, but another approach is to create a large visible graphic with the respective number and make it the wallpaper for each device's home page.

- ✔ **You *don't* got mail.** Forget setting up incoming email in the iPad Mail app unless you're prepared to let students see each other's email. Changing email accounts in Mail requires going to Settings; that can get messy and time-consuming (although some schools do it that way).
- ✔ **Access email through the web browser.** Many email services such as Google and Microsoft Exchange have a web interface that you can access through Safari. Just make sure to log out when you're done.
- ✔ **Log out, log out, log out.** Few apps prompt you to log out when you close them, but many have an option to log out on their Settings menus. Encourage students to always log out (as shown in Figure 1-3) before closing an app or website that requires a login.
- ✔ **Appreciate the silver lining to your cloud account.** Consider saving data to a cloud-based service such as Google Drive or Dropbox. There are simple ways to move content from the iPad to a cloud storage account. For example, many apps have a Share option that enables you to move content from one app to another. Moving content to the Google Drive app on your iPad makes that content available on any other device or computer that can also access your Google Drive account. You'll still have to delete the files from the iPad, however, if you want to keep the information private.

Encourage students to use logout options.

Figure 1-3:
Many iPad
apps such
as Pocket
have options
to sign in
and out.



What This Book Is and Is Not

The objective of this book is to help you successfully integrate the use of iPads into an educational setting.

- ✔ Although my main objective isn't to teach you mad iPad skills that turn you into the go-to technology expert, you'll pick up a lot of helpful knowledge about iPad use along the way.
- ✔ It isn't a technical book for the school's "tech guy." He has enough headaches already.
- ✔ It isn't a directory of app recommendations. There are several hundred thousand apps on the market (and a few more probably came out as you were reading this sentence!). Learning new apps is fun, but the book's focus is firmly on educational objectives. I demonstrate a variety of apps and web tools to help move you in that direction.
- ✔ The book will be helpful for teachers, school administrators, parents, and anyone else concerned with education.
- ✔ You will learn how to use iPads effectively as educational tools that engage students and energize learning across age levels and academic disciplines.
- ✔ At its core, this actually isn't a book about "using iPads in education." Instead, it's a book about "educating using iPads." That isn't just a small semantic difference. It's an important distinction in priorities that stresses the fact that using technology is never the goal.

Technology is a tool that serves the greater objective of preparing students for their lives outside school.

- ✔ Last, if you've ever spent two minutes with an iPad, you know that this is a book about having fun!



