

Making Everything Easier!™

2nd Edition

# iPad® in Education

FOR  
**DUMMIES**®  
A Wiley Brand

## **Learn to:**

- Apply iPad best practices, tools, and apps in the classroom
- Help children use the iPad for learning outside of school
- Integrate iPads into the curriculum across different grade levels and subjects

**Sam Gliksman**

*Leading technology applications educator*



# *iPad<sup>®</sup> in Education*

FOR  
**DUMMIES<sup>®</sup>**  
A Wiley Brand

***2nd Edition***

**by Sam Gliksman**

FOR  
**DUMMIES<sup>®</sup>**  
A Wiley Brand

## **iPad® in Education For Dummies,® 2nd Edition**

Published by: **John Wiley & Sons, Inc.**, 111 River Street, Hoboken, NJ 07030-5774, [www.wiley.com](http://www.wiley.com)

Copyright © 2015 by John Wiley & Sons, Inc., Hoboken, New Jersey

Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the Publisher. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at <http://www.wiley.com/go/permissions>.

**Trademarks:** Wiley, For Dummies, the Dummies Man logo, Dummies.com, Making Everything Easier, and related trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc. and may not be used without written permission. iPad is a registered trademark of Apple Inc. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. is not associated with any product or vendor mentioned in this book. *iPad® in Education For Dummies®, 2<sup>nd</sup> Edition* is an independent publication and has not been authorized, sponsored, or otherwise approved by Apple, Inc.

<p><b>LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY: THE PUBLISHER AND THE AUTHOR MAKE NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS</b></p>
--

**OF THE CONTENTS OF THIS WORK AND SPECIFICALLY DISCLAIM ALL WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY MAY BE CREATED OR EXTENDED BY SALES OR PROMOTIONAL MATERIALS. THE ADVICE AND STRATEGIES CONTAINED HEREIN MAY NOT BE SUITABLE FOR EVERY SITUATION. THIS WORK IS SOLD WITH THE UNDERSTANDING THAT THE PUBLISHER IS NOT ENGAGED IN RENDERING LEGAL, ACCOUNTING, OR OTHER PROFESSIONAL SERVICES. IF PROFESSIONAL ASSISTANCE IS REQUIRED, THE SERVICES OF A COMPETENT PROFESSIONAL PERSON SHOULD BE SOUGHT. NEITHER THE PUBLISHER NOR THE AUTHOR SHALL BE LIABLE FOR DAMAGES ARISING HEREFROM. THE FACT THAT AN ORGANIZATION OR WEBSITE IS REFERRED TO IN THIS WORK AS A CITATION AND/OR A POTENTIAL SOURCE OF FURTHER INFORMATION DOES NOT MEAN THAT THE AUTHOR OR THE PUBLISHER ENDORSES THE INFORMATION THE ORGANIZATION OR WEBSITE MAY PROVIDE OR RECOMMENDATIONS IT MAY MAKE. FURTHER, READERS SHOULD BE AWARE THAT INTERNET WEBSITES LISTED IN THIS WORK MAY HAVE CHANGED OR DISAPPEARED BETWEEN WHEN THIS WORK WAS WRITTEN AND WHEN IT IS READ.**

For general information on our other products and services, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002. For technical support, please visit [www.wiley.com/techsupport](http://www.wiley.com/techsupport).

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit [www.wiley.com](http://www.wiley.com).

Library of Congress Control Number: 2014941050

ISBN 978-1-118-94698-5

ISBN 978-1-118-94699-2 (ebk); ISBN 978-1-118-94700-5 (ebk)

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

# iPad® in Education For Dummies®

Visit

[www.dummies.com/cheatsheet/ipadineducation](http://www.dummies.com/cheatsheet/ipadineducation) to view this book's cheat sheet.

## Table of Contents

### Introduction

[About This Book](#)

[Foolish Assumptions](#)

[Icons Used in This Book](#)

[Beyond the Book](#)

[Where to Go from Here](#)

### Part I: Getting Started with the Educational iPad

#### Chapter 1: Education in the 21st Century

[Investigating New Educational Models](#)

[Re-evaluating educational objectives in a changing world](#)

[Implementing iPads for 21st-century learning](#)

[Moving from Text to Multimedia](#)

[Asking Why You Want iPads](#)

[Sharing iPads in Schools](#)

[What This Book Is and Is Not](#)

#### Chapter 2: Getting Acquainted with iPad Technology

[Touring the iPad's Physical Layout](#)

[Along the edges](#)

[Looking at the front and back](#)

[It's Not Your Father's Computer](#)

[How iPads differ from laptops](#)

[Apps versus software](#)

[Where's the keyboard?](#)

[Storing and moving files](#)

## [Planning for the Essential Extras](#)

[Connecting wirelessly](#)

[Tuning your iTunes account](#)

[Using Apple's Volume Purchase Program](#)

[Email](#)

## [Operating an iPad](#)

[Turning on](#)

[Staying in charge](#)

[Pumping up the volume](#)

[Using the built-in cameras](#)

## [Getting Comfortable](#)

[Navigating the Home screen](#)

[Putting your apps in order](#)

[Learning multitouch gestures](#)

[Creating and editing text](#)

[Switching between apps](#)

[Using iPhone apps](#)

[Searching your iPad](#)

## [Accessorizing Your iPad](#)

# **[Chapter 3: Managing the iPad Classroom](#)**

## [Planning the Deployment](#)

## [Preparing Your Infrastructure](#)

## [Configuring and Managing iPads](#)

[Managing devices](#)

[Distributing configuration profiles](#)

[Supervising devices](#)

## [Deploying Apps and Content](#)

## [Management Tips](#)

[Using restrictions on student iPads](#)

[Tracking devices with Find My iPad](#)

[Identifying iPads](#)

# **[Part II: Finding and Using Apps](#)**

# **[Chapter 4: Tap Dancing with Your iPad's Apps](#)**

## [Making Mail a Communication Tool](#)

[Opening Mail accounts](#)

[Browsing mail](#)

[Creating and sending an email](#)

[Using contacts](#)

[Deleting email](#)

## [Taking an Educational Internet Safari](#)

[Browsing and tabs](#)

[Googling](#)

[Getting rid of clutter with Reader](#)

[Bookmarking](#)

[Reading List](#)

[Adding a website to your Home screen](#)

[Saving images from the web](#)

[Searching the page](#)

## [Taking and Using Photos and Video as Learning Tools](#)

[Taking photos](#)

[Shooting video](#)

[Importing pictures and videos](#)

[Editing pictures](#)

[Editing video](#)

[Using pictures and video in projects](#)

## [Reading and the Digital Book Revolution](#)

[Customizing reading settings](#)

[Changing pages](#)

[Using bookmarks, highlights, and notes](#)

[Searching](#)

[Purchasing books](#)

[Adding PDF documents](#)

[Organizing collections](#)

[Using iTextbooks](#)

## [Getting Organized with Contacts and Calendar](#)

### [Finding Value in Other Apps](#)

## **[Chapter 5: Purchasing and Downloading Apps](#)**

### [Browsing the App Store](#)

### [Selecting Between iPad and iPhone Apps](#)

[Using iPhone apps on your iPad](#)

[Using the App Store on your iPad or computer](#)

### [Finding the Golden Nuggets](#)

[Searching for and purchasing apps](#)

[Getting help finding apps](#)

### [Deciding Between Light and Full Apps](#)

## **[Part III: Finding and Organizing Educational Content](#)**

## **[Chapter 6: Finding and Organizing Content](#)**

### [Googling on Your iPad](#)

### [Saving Web Pages for Later Reading](#)

[Reading List](#)

[Pocket](#)

### [Creating Custom News Feeds](#)

[Flipboard](#)

[Diigo](#)

### [Keeping a Digital Evernote Notebook](#)

## **[Chapter 7: Social Networking and Sharing](#)**

### [Learning with Twitter](#)

### [Group Sharing with Diigo](#)

### [Sharing Videos with Showyou](#)

## **[Part IV: Reading, Writing, and 'Rithmetic in the Digital Age](#)**

## **[Chapter 8: Reading on the iPad](#)**



## [Digital Reading for Younger Students](#)

[E-books](#)

[Book apps](#)

[E-book subscriptions](#)

## [Reading Documents with GoodReader](#)

## [Reading Books Electronically: E-Reader Devices and Apps](#)

[iBooks](#)

[Kindle](#)

[Nook](#)

[Kobo](#)

## [Getting Free E-Books](#)

## [Entering the E-Textbook Era](#)

# **[Chapter 9: Creating, Editing, and Annotating Documents](#)**

## [Determining Your Objectives](#)

## [Taking Notes](#)

## [Word Processing with Pages](#)

[Using Pages with iCloud](#)

[Starting or opening a document](#)

[Editing documents](#)

[Managing your documents](#)

[Sharing documents](#)

## [Microsoft Office Arrives for the iPad](#)

## [Annotating PDF Documents](#)

## [Writing and Sketching](#)

[Touring Notability](#)

[Using Notability](#)

# **[Chapter 10: Becoming a Digital Author](#)**

## [Choosing an E-Book Format](#)

## [Distributing Documents for E-Readers](#)

## [Becoming a Book Creator](#)

## [ScribblePress for Beginning Authors](#)

## [Publishing with iBooks Author](#)

# **[Chapter 11: The Mathematical and Scientific iPad](#)**

## [Exploring Tools for Scientific Inquiry](#)

[SPARKvue HD and PASCO Probes](#)

[ProScope Mobile](#)

[Cameras, apps, and more](#)

## [The Investigative iPad Classroom](#)

[Engineering a solar oven](#)

[Finding the effect of watering solutions on germinating beans](#)

[Hunting for geometric treasure](#)

[Measuring projectile motion in Angry Birds](#)

[Expressing learning through graphical representation](#)

[Using Minecraft to demonstrate area and perimeter](#)

[Exploring properties of human-made materials](#)  
[Designing dream-house blueprints](#)  
[Exploring celestial mysteries](#)  
[Creating narrative e-books to explain the body system](#)  
[Exploration of invasive species](#)  
[Testing how sound travels through different mediums](#)  
[Animating movement of plate tectonics](#)

#### [Additional Apps for Math and Science](#)

[Frog Dissection](#)  
[DragonBox](#)  
[Khan Academy](#)  
[Monster Physics](#)

### **[Chapter 12: Using Assistive Technologies](#)**

#### [Accessibility Features on the iPad](#)

[Vision](#)  
[Hearing](#)  
[Learning](#)  
[Physical and motor skills](#)

#### [Assessing Accessibility Apps](#)

[Proloquo2Go](#)  
[Notability](#)  
[Digit-Eyes](#)

#### [Using the Reader in Safari](#)

## **[Part V: Expressing Yourself with Media](#)**

### **[Chapter 13: Digital Storytelling in Education](#)**

[Understanding the Role of Technology in Storytelling](#)  
[Engaging Learners through Digital Storytelling](#)

### **[Chapter 14: Lights, Camera, Learning](#)**

[Planning Your Production](#)  
[Designing Short, Simple Movies with SonicPics](#)  
[Creating and Editing Video](#)  
[Trimming video in the Camera Roll](#)  
[Using iMovie](#)  
[Exploring other video apps](#)

### **[Chapter 15: Animating Your Lessons](#)**

[Staging a Sock-Puppets Show](#)  
[Living the Comic Life](#)  
[Making your comic](#)  
[Sharing your comic](#)  
[Creating Stop-Motion Animation](#)

### **[Chapter 16: Speaking Your Mind with Podcasts](#)**

[Putting an Educational Perspective on Podcasting](#)  
[Preparing for Your Podcast](#)  
[Looking for opportunities](#)

[Allowing a degree of creative license](#)

[Clarifying the planning process](#)

[Collaborating](#)

[Considering technical issues](#)

[Publishing a podcast](#)

### [Producing and Publishing Your Podcast](#)

[GarageBand](#)

[SoundCloud](#)

[Audioboo](#)

### [Using Microphones](#)

## **[Chapter 17: Directing Your Own Screencasts](#)**

[Screencasting across the Curriculum](#)

[Creating Simple Screencasts with ScreenChomp](#)

[Setting your stage](#)

[Using the ScreenChomp tools](#)

[And you're on air](#)

[Creating Tutorials with Explain Everything](#)

## **[Chapter 18: Releasing Your Inner Artist](#)**

[Finger Painting with a Doodle Buddy](#)

[Creating Images Never Felt This Good](#)

[Annotating Images with Skitch](#)

[Painting a Masterpiece with Brushes 3](#)

[Getting started](#)

[Painting over a photograph](#)

[Watching a masterpiece evolve](#)

## **[Part VI: The iPad Classroom](#)**

### **[Chapter 19: Creating Effective Classroom Workflows](#)**

[Classroom Workflow Options](#)

[Personal Cloud Storage and Sharing](#)

[Sharing and Collaborating with Google Apps](#)

[Paperless Assignments with Showbie](#)

[Creating a Showbie assignment](#)

[Submitting work for a Showbie assignment](#)

[Reviewing the assignment and giving feedback](#)

[Simple Workflows for Sharing Media](#)

[Kicking it old school: Email](#)

[Using AirDrop](#)

[Moving media wirelessly with PhotoSync](#)

[AirPlay Mirroring iPads in Class](#)

[Printing from Your iPad](#)

[Printing with AirPrint](#)

[Connecting to any printer](#)

[Using Printopia](#)

[Using virtual printers](#)

[Using Windows printing solutions](#)

[Network printing](#)

## **Chapter 20: Presenting with Impact**

[Creating a Keynote Presentation](#)

[Showing PowerPoint Presentations on an iPad](#)

[Designing Presentations with Visual Impact](#)

[Creating a Haiku Deck Presentation](#)

[Creating Interactive Classroom Lessons with Nearpod](#)

[Sign up for a Nearpod account](#)

[Creating a Nearpod presentation](#)

[Delivering your interactive presentation](#)

## **Chapter 21: Developing Digital Portfolios**

[Setting Up an E-portfolio System](#)

[Constructing an Effective E-portfolio](#)

[Using Google Apps for E-portfolios](#)

[Building E-portfolios with eduClipper](#)

## **Chapter 22: Quizzing Students with Socrative**

[Generating Quizzes](#)

[Appreciating the Value of Anonymity](#)

[Collecting and Using Data from Students](#)

[Using Other Quiz Features](#)

## **Part VII: The Part of Tens**

### **Chapter 23: Ten Essential Apps for the Educator**

[Wunderlist](#)

[Pocket](#)

[Google Search](#)

[Twitter](#)

[Dropbox](#)

[PhotoSync](#)

[Newseum](#)

[Splashtop 2 Remote Desktop](#)

[TED](#)

[iTunes U](#)

### **Chapter 24: Ten Keys to a Successful iPad Implementation**

[Determining Your Technical Readiness](#)

[Understanding and Communicating Why You Want iPads](#)

[Targeting 21st-Century Learning Objectives](#)

[Developing Simple iPad Management Strategies](#)

[Understanding That iPads Aren't Laptops](#)

[Overcoming "There's an App for That" Syndrome](#)

[Share and Share Alike Doesn't Always Work](#)

[Building an Ongoing Training and Support Structure](#)

[Connecting](#)

[Enabling the Unpredictable](#)

## **Appendix: Modeling the iPad Classroom**

[Creating a Band for Students with Disabilities](#)

[Creating a Picasso with Stop-Motion](#)

[Creating a Virtual Museum](#)

[Storytelling with Stop-Motion Animation](#)

[Crafting Enhanced Book Reports](#)

[Screencasting to Develop Speaking Fluency](#)

[Designing Inventions That Solve World Problems](#)

[Writing Creatively about Scientific Observations](#)

[Understanding Culture through Stories](#)

[Designing the Next Space Vehicle](#)

## **About the Author**

## **Cheat Sheet**

## **More Dummies Products**

# 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](http://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](http://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](http://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](http://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](http://www.dummies.com) to learn more and do more with *For Dummies*.

## ***In this part ...***

- ✓ Examine the evolving educational needs of students in the 21<sup>st</sup> 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 / 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.

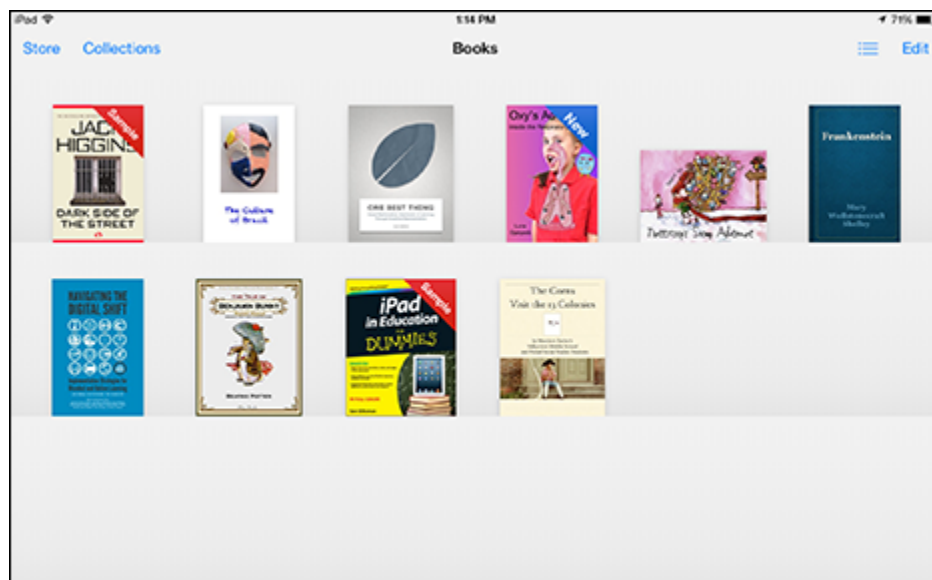
## ***Implementing iPads for 21st-century learning***

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