THE BUSINESS OF ePublishing 2015

Understand the devices, users, formats, and economics of the world of digital publishing.

Pariah S. Burke

ePublishing with InDesign 2015
BOOK 1

THE BUSINESS OF ePublishing 2015

Understand the devices, users, formats, and economics of the world of digital publishing.

Pariah S. Burke

ePublishing with InDesign 2015

BOOK 1

CONTENTS

- Acknowledgments
- About the Author
- Introduction
  - How This Book Is Organized
  - How to Use This Book
    - Aspirin-Free Workflow Sidebars
    - Special URLs
    - Lesson Files
    - How to Contact the Author
    - Please Leave a Review

Chapter 1 eReading Devices & Their Capabilities

- Device Classes
- eReaders
- Tablets
  - eReading on Tablets
  - Tablet Operating Systems
    - Apple iOS
    - Android OS
    - Windows
    - Amazon Fire OS
  - Tablet Sizes
- Computers
- Mobile Phones
- Future Devices
- Designing for Devices

Chapter 2 Digital Publishing Formats and Their Capabilities

- Quick Reference: Format Capabilities
- Reflowable EPUB
  - What Reflowable EPUB Offers
  - What Reflowable EPUB Does Not Offer
  - EPUB Examples
  - EPUB Production Roles
- Fixed-Layout
  - What Fixed-Layout Offers
  - What Fixed-Layout Does Not Offer
  - Fixed-Layout Examples
  - Fixed-Layout Production Roles
- Kindle Formats

AZW, MOBI, and PRC Formats
KF8 Format
PDF
What PDFs Offer
What PDFs Do Not Offer
PDF Examples
PDF Production Roles
Digital Replica
What Digital Replica Offers
What Digital Replica Does Not Offer
Digital Replica Examples
Digital Replica Production Roles
Interactive Magazine
What Interactive Magazine Offers
What Interactive Magazine Does Not Offer
Interactive Magazine Examples
Interactive Magazine Production Roles
HTML5
What HTML5 Offers
What HTML5 Does Not Offer
HTML5 Publication Examples
HTML5 Production Roles
Chapter 3 Digital Publication Types and Their Markets
Quick Reference: Publication Types in Format Classes
Ebook
Fixed-Layout Ebook
Ejournal
Emagazine
Ecatalog
Enewspaper
Etextbook
Digital Comic Book
Chapter 4 The Facts, Figures, and Financials of ePublishing
People and Their Device Usage
The Business of eBooks
The Business of Children’s & Young Adult eBooks
Authors and Their Incomes
The Missing 30 Percent of the Data
Self-Publishing
Hybrid Authoring—Traditional and Self-Publishing
Traditional Publishing to Self-Publishing
Self-Publishing to Traditional Publishing

The Business of eTextbooks
The Business of eMagazines
Be Alerted to Revisions & Updates
Glossary of Terms

Development Editor: Michael Taylor

Copy Editor: Rick Thomas

Book design and cover design: Pariah S. Burke

Published by Pariah S. Burke

To Schentel and Mikayla. This book exists because of your unflappable faith, love, and support.

Acknowledgments

First and foremost, I want to acknowledge my fans. You honor and humble me with all the wonderful reviews on Amazon, GoodReads, Twitter, and elsewhere. Thank you for attending my presentations and conference sessions. Thank you for the flowers and peanut brittle.

When you choose to write a book about not one or two but about a dozen different cutting edge technologies that change faster than the wind… Well, if you choose to do that, you must be insane. I can now say that with confidence because I've written this book about the biggest moving target since 1984—*thrice!* But stick with me, folks; I'll keep you from falling being that moving target.

My wife Schentel, thank you, thank you, thank you for your bountiful patience, understanding, and faith. Thank you for putting up with my long hours at work, darling, and for being everything I ever wanted in a wife, a friend, and a partner.

Mikayla, I know you didn't understand why a book takes so much concentration and time, but now your name is in another published book that you friends can buy on Amazon.

My friends, Anna Gauthier, Chris Bellido, Liz Schmidt, Tom Green, Bob Levine, Samuel John Klein, A.J. Wood, Justin Seeley, Rufus Deuchler, Kevin Stohlmeyer, Scott Valentine, Branislav Millic, Nancy Smith Burleson, Rob Huddleston, Jim Babbage, and too many others to name, thank you for the commiseration, support, and the well-timed jokes.

Thank you Johannes Gutenberg, Aldus Manutius, Claude Garamond, John Warnock, Chuck Geschke, Paul Brainard, Tim Gill, Steve Jobs, Bill Gates, and everyone else who got us to the ePublishing Revolution.

About the Author

Pariah Burke is a speaker, consultant, author, and trainer specializing in design, the

design business, and print and digital publishing workflows. All of his work and his 20+ year career is motivated directly by a strong passion to inspire, inform, and empower creative professionals. Pariah has over 20 years' experience as a graphic and publication designer, is an Adobe Community Professional, and was the trainer and technical lead for Adobe's technical support teams for InDesign, InCopy, Illustrator, and Photoshop. A prolific author, Pariah literally wrote the book and the curriculum for learning and teaching digital publishing from InDesign, *ePublishing with InDesign* (http://iamPariah.com/books), wrote the first book for experienced InDesign users, *Mastering InDesign for Print Design and Production*, has authored and co-authored other books on epublishing, Creative Suite, Adobe Illustrator, and QuarkXPress, and has published more than 450 tutorials and articles in the industries most prestigious magazines. He is the co-author of InDesign, InCopy, and Illustrator Adobe Certified Expert exams, the tests Adobe administers to gauge the skill levels of InDesign and Illustrator instructors and experts. When not traveling, Pariah lives in the greater Boston area where he writes (a lot) and creates (many) projects and publications for Inspiring, Informing, and Empowering Creative Professionals™.

Connect with Pariah S. Burke

- @iampariah https://twitter.com/iampariah
- https://www.facebook.com/PariahSBurke
- Official Website at http://iampariah.com
- Amazon Author Page http://www.amazon.com/Pariah-S.-Burke/e/B001KEA1BS/
- GoodReads Author Page https://www.goodreads.com/author/show/753029.Pariah_S_Burke
- https://www.linkedin.com/in/pariahburke
- https://www.pinterest.com/iampariah/

Introduction

Print is dead! they cry.

They. Are. Wrong.

No, print is emphatically *not dead*. Print-only publishing, however, *is* dead.

If you (or your clients) publish anything with a larger distribution than a church bulletin only in print, then your publication will be dead before the end of the decade. We are hip-deep in the largest shakeup in the publishing world since the Desktop Publishing Revolution of the 1980s. This book you're now reading is part of a comprehensive educational system that covers the entire epublishing spectrum, from ebooks to fixed-layout picture books, from print-to-tablet digital replica publications to fully interactive tablet magazines, from periodicals to ecatalogs, and from ebooks to digital yearbooks. I say "comprehensive educational system" because this book is only the tip of the iceberg. *ePublishing with InDesign* is not just a book but a full, ready-to-deploy epublishing curriculum. And it goes beyond that, as well.

Digital publishing is a wide and rapidly evolving set of industries. Some segments change so frequently that I had to take this book to self-published. The first edition, in 2012 and 2013, was published traditionally, through a major technical book publication house. Unfortunately for me and for my readers, that publisher couldn't be nimble enough to publish this book the way it needed to be, as rapidly as it needed to be. By way of example is the fact that I proposed that first edition of the book in October 2011; it wasn't published until December of the following year. I had wanted to publish chapter-at-a-time, putting each chapter out to be read and used as my editorial team and I finished it. The publisher didn't know how to do that, so they held chapters for up to 12 months until every little bit was finished. By then, some information in early chapters was outdated.

In February of 2013 I self-published a chapter they publisher felt not important enough to include in the printed book. That chapter was *Creating Fixed-Layouts with InDesign*, and it sold more copies than my previous two traditionally published books. That experience, my knowledge of how rapidly epublishing industries change, and the need readers like you have for frequently updated information cemented my belief that the only way to do epublishing education correctly was to self-publish on a rapid release schedule. Thus you now hold a book that was written not 3–6 months ago, then run through corporate layout departments backed up with dozens of other books. This book was written mere *days* before it went on sale. Some I published the day I finished laying them out in InDesign, with layout coming immediately after my editors and I finish text

revisions.

In this way I can keep such mercurial topics like fixed-layout ebooks (Chapter 8) and the business of digital publishing (Chapter 4) fresh and relevant so that *you* can keep up with the latest mission-critical information about epublishing industries, formats, and workflows, and so that *you* can consistently produce the most powerful, most marketable epublications possible, using the most efficient and cost-effective methodologies available.

If keeping current is important to, watch the *ePublishing with InDesign Series* website at http://abbrv.it/ePubInD, or, better yet, get notifications of book updates and revisions *sent to you* by subscribing to the spam-free *ePublishing with InDesign Alerts* email newsletter at http://iampariah.com/newsletters.

How This Book Is Organized

This book covers four overarching topic areas: the world and economics of epublishing, ebook creation, going beyond basic ebook creation, and rich-media interactive publications. Each section focuses on a different area of epublishing—from the business, market, devices, and formats of epublications; then going into ebooks; on to fixed-layout ebooks, fully interactive PDF epublications, and publishing books to print-on-demand, and; wrapping up with the area I'm most excited about, fully interactive periodicals, catalogs, and enhanced ebooks.

How to Use This Book

You could, of course, use the print version of this book as a doorstop or to squish a bug—the aqueous coating on the cover will enable the guts to be easily wiped off if you don't leave them sitting too long. It's just thick enough that, should one of the casters fall off your office chair, this book could keep your chair perfectly balanced until it's fixed. If you find yourself trapped in the woods during the winter, there are plenty of pages herein to burn or to crinkle up and use as insulation inside your clothes.

Candidly, I prefer you read the book and use it to help you begin or expand your epublishing efforts. With that in mind, what follows is an explanation of the special way I've handled URLs in the book, a note about the lesson files, and a reminder that there's much more content available than what is directly between the bug-squishing covers of this individual printed book volume.

Aspirin-Free Workflow Sidebars

In addition to the standard tip boxes and sidebars you'll see throughout the book, I've

included special Aspirin-Free Workflow sidebars to call extra attention to pointers that will make your production work a little less stressful and more efficient.

Special URLs

Throughout this book I've included a number of hyperlink addresses. To make it as easy as possible for you to use those hyperlinks while working with this book, they have been specially created and organized. Each URL is written out so that you can type it into a web browser or make note of it for future use. In most cases, the URLs begin with http://abbrv.it/, which is the author's own custom URL-shortening service. These shorter URLs make it easier for you to retype what otherwise might be very long and complicated addresses. Also, because the URLs employ my own URL shortener, should the address on a third-party website change, I can update the shortened URL without invalidating the address provided in this book. Should you discover a broken link, please alert me immediately by emailing ePublishingIND@iampariah.com (subject: "Broken Link in ePublishing with InDesign") so that I can fix the shortened link.

Lesson Files

Obviously, the best way to learn some of the techniques presented in this book is by going hands-on, and you will, through numerous step-by-step tutorials. To make your hands-on learning easier, you are, of course, encouraged to work with your own production documents, but I've also provided copious examples you can dig through, manipulate, and test-publish. Note that I tried to use only the fonts automatically installed with InDesign. That way, when you open the INDD lesson files, you won't have to hassle with font substitution or text reflow; unless you chose not to install the Adobe Fonts or removed or deactivated them later, you already have the fonts I used installed and ready for your use.

How to Contact the Author

Questions?

Epiphanies?

Knock-knock jokes?

Want to hire me for direct consulting on your publishing workflow?

Examples of your digital publications I can use in a future edition of this book?

Contact me:

Email me: ePublishingIND@iampariah.com

Visit my website: http://iamPariah.com

Follow me on Facebook: https://www.facebook.com/PariahSBurke

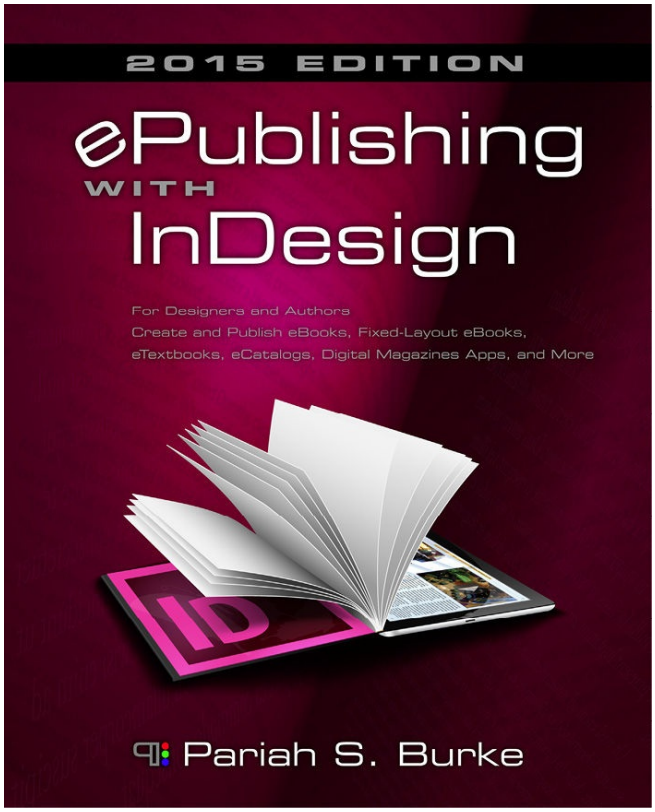
Connect with me on Twitter @iampariah https://twitter.com/iampariah

Follow my InDesign, epublishing, and other pins on Pinterest: https://www.pinterest.com/iampariah/

Please Leave a Review

Book reviews on ebookstores are *incredibly* important for the success of books. If you like this book, please, take a moment to leave a review where you bought it, whether that's Amazon.com, iBooks, B&N.com, Kobo, Google Play Books, or elsewhere. If you feel so inclined, feel free to leave the same review in multiple ebookstores. Amazon.com, of course, is the most important, as the data in Chapter 4, "The Facts, Figures, and Financials of ePublishing" proves again and again.

***The ePublishing 2015 Series* by Pariah S. Burke is built to provide you, the reader, with the ultimate in flexible choices.**

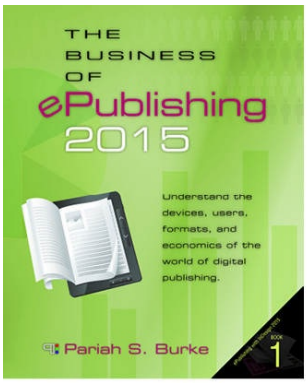


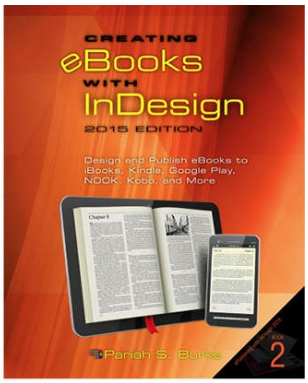
Complete 14-Chapter Book

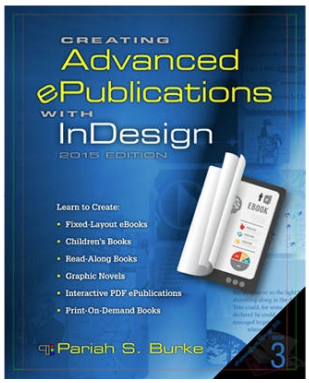
The complete *ePublishing with InDesign 2015 Edition* includes all 14 chapters and the glossary, and is available in print, PDF, and ebook formats from Apple iBooks, Amazon Kindle, Barnes & Noble NOOK, Kobo, and Google Play Books.

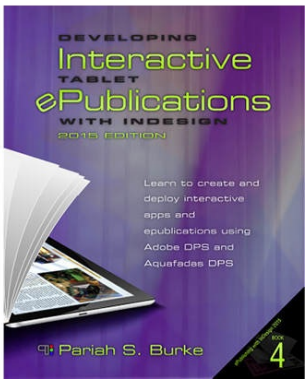
Instructor Edition

An instructor edition of *ePublishing with InDesign 2015 Edition* by Pariah S. Burke is available to teachers and private instructors with a qualifying purchase. The Instructor Edition includes additional materials and resources to help educators effectively teach epublishing.









Standalone Section Editions

If you don't need all 14 chapters described in the Contents At-a-Glance on the following few pages, *ePublishing with InDesign 2015 Edition* comprises four sections, with each section and its constituent chapters available separately in print, PDF, and ebook formats.

Single Chapters

Additionally Each of the following chapters is available by itself for chapter-at-a-time purchase in PDF and ebook formats.

All editions and formats are available at:

http://abbrv.it/ePubInD

Book 1 The Business (and World) of ePublishing

Chapter 1: eReading Devices and Their Capabilities

The first thing to understand about digital publishing is what devices people use to consume digital content, including what types of publications each device class can support, how people use the devices, and where ereading hardware is headed. You will find a startling array of devices on the market, but ultimately there are only four classes of devices on which digital publications are consumed.

In this chapter, you will learn about the following:

- Device Classest
- eReaders
- Tablets
- Computers
- Mobile Phones
- Hybrid Devices
- Future Devices
- Designing for Devices

Chapter 2: Digital Publishing Formats and Their Capabilities

Like devices, epublication formats are numerous and varied, with differences, sometimes subtle, between them, but large divergences in purpose, capability and device support. Consequently, it's most logical and productive to think of epublications in terms of format classes, with each class offering a particular combination of purpose, capability, and device support.

In this chapter, you will learn about the following formats:

- Reflowable EPUB
- Fixed-Layout
- Kindle Formats
- PDF
- Digital Replica
- Interactive Magazine
- HTML5

Chapter 3: Digital Publication Types and Their Markets

Now that we've examined the characteristics and capabilities of the available digital publication formats, it's time to think about the kind of content you want to disseminate digitally. It's all rather subjective, but I'll identify the purpose, character and use of different publication types as well as explain which format classes are best suited to each type.

In this chapter, you will learn about the following publication types:

- eBook
- Fixed-Layout eBook
- Emagazine

- Enewspaper
- Etextbook
- Digital Comic Book

Chapter 4: The Facts, Figures, and Financials of ePublishing

Whether you are an aspiring self-publisher or the CEO of a major publishing house, a freelance designer or sales person, this chapter will provide statistics, figures, and examples to help you make sense of the business, economic, and marketing concerns of epublishing. Whether your intent is to sell yourself, your boss, or your clients, or if you just want to educate yourself about the realities of the world of epublishing, you'll find in this chapter an abundance of important, relevant data.

In this chapter, you will learn about the following:

- People and Their Device Usage
- The Business of eBooks
- The Business of Children's & Young Adult eBooks
- Authors and Their Incomes
- The Missing 30 Percent of Data
- Self-Publishing
- The Business of eTextbooks
- The Business of eMagazines
- Enewspaper
- Etextbook
- Digital Comic Book

Book 2 Creating eBooks

Chapter 5: Creating Basic eBooks

Whether creating ebooks from TXT files or word processor documents or converting existing print publications to EPUB, the basics are all the same. You must learn to think in terms of EPUB, to reevaluate how your content is organized, and to know how to structure it using InDesign's built-in tools in order to produce well organized, readable ebooks. The yellow brick road to becoming a wizard of ebook production starts with this chapter and proceeds through the next several chapters, creating progressively more interesting, more marketable ebooks and other EPUB-based publications.

In this chapter, you will learn about the following:

- Creating an eBook from Scratch
- Testing Your EPUB
- Styling Your eBook
- Converting a Print Publication to an eBook
- Etextbook
- Digital Comic Books

Chapter 6: Working with Images and Multimedia in eBooks

Although the majority of ebooks are text-only novels and short stories, many ebooks—across all genres—includes photographs, illustrations, charts, graphs, maps, and all sorts of other imagery, and even audio and video. Moreover, even novels and short stories typically have at least cover images. Whether your publication merely needs a cover or requires lots of figures, creating and using them in ebooks differs in several distinct ways from creating and using graphics for print or multi-media for other digital formats.

In this chapter you will learn about:

- Exporting Images to eBooks
- Preparing Images for eBooks
- Adding Audio and Video to eBooks
- Adding Scalable Vector Graphics to eBooks

Chapter 7: Fine-Tuning EPUBs

Successful, efficient EPUB production begins in, and centers on, InDesign and the toolset InDesign brings to the business of ebook publishing. However, InDesign isn't the only tool you'll need to produce ebooks of the highest quality, maximum compatibility, and utmost reader engagement. At a certain point you'll need to go inside the EPUB to edit and massage the components InDesign can't reach, often working in conjunction with the original files in InDesign to build an ebook that takes fullest advantage of ereader to provide an ideal reading experience.

In this chapter you will learn about

- Getting Inside the EPUB
- Editing Files inside the EPUB
- Editing eBook Metadata
- Creating Multiple-Chapter eBooks
- Creating Tables of Contents

Book 3 Advancing Beyond Reflowable eBooks

Chapter 8: Creating Fixed-Layout eBooks

Often referred to as “children’s ebooks,” “picture ebooks,” “photo books,” and similar monikers, fixed-layout ebooks are visually-rich layouts that offer much more than standard EPUBs. Although they’re only supported on tablets and certain other devices, the popularity of fixed-layout ebooks has exploded among both readers and publishers.

In this chapter you will learn about:

- Understanding Fixed-Layout eBooks
- Planning a Fixed-Layout eBook
- Creating Fixed-Layout in InDesign
- Adapting the HTML
- Editing the CSS
- Adding Advanced Features
- Creating Read Aloud Narration
- Creating Fixed-Layout for Kindle
- Converting Fixed-Layout for Nook
- Creating Fixed-Layout for Kobo
- Other Fixed-Layout Creation Tools

Chapter 9: Designing Interactive PDF Publications

PDF (Portable Document Format) publications are still a viable—indeed, a popular—distribution format. PDFs support rich multi-media, hyperlinks, variable-visibility objects, some pretty cool interactivity, scripting, reflowable text like EPUBs, and electronic forms. PDF viewers are available for all computer and mobile platforms, though feature support varies by platform. In this chapter we’ll use PDF to its fullest epublishing potential while defining the restrictions placed on it by certain devices. We’ll also look at some successful PDF-based publications that have been going strong for years.

In this chapter you will learn about:

- Planning a PDF Publication
- Starting a New Document
- Exporting to Interactive PDF
- Creating External Hyperlinks of All Types
- Adding Audio and Video
- Devising Intra-Document Navigation
- Creating Advanced Interactivity
- Finalizing the Publication

Chapter 10: Producing Digital Replicas for Tablets

With pixel-perfect layout control, unrestricted font, color, and aesthetic choices, and a minimal cost in both dollars and time to go from print-ready layout to tablet viewable, digital replica format publications are fast, cost effective, and easy to produce. They lack the ability to fit different screen sizes automatically, as well as interactive features beyond basic hyperlinks and embedded audio and video, but can be the perfect solution for publications that don’t require those

features.

In this chapter you will learn about:

- Digital Replica Systems & Services
- Converting Print to Digital Replica
- Planning New Publications
- Creating Hyperlinks
- Adding Audio and Video

Chapter 11: Going to Press with Print-On-Demand Books

Self-publishing, whether for mass market consumption or private distribution, doesn't mean publishers have to forgo print editions. Nor does having printed books mean large up front investments in printing and inventory storage. Simultaneous to the explosion of digital publishing, print-on-demand services have risen to provide anyone with low cost, short run and on-demand book printing. While some services charge a small fee, others are completely free to the publisher and author, requiring payment only when a printed book is ordered by a customer.

In this chapter you will learn about:

- Print-On-Demand Services
- Planning a Print-On-Demand Book
- Starting a New Document
- Converting from eBook
- Preparing Cover Art for All Three Sides
- Exporting for Print-On-Demand

Book 4 Developing Interactive Tablet Publications

Chapter 12: Mastering the Fundamentals of Interactive Magazines

In this chapter we'll focus on the basics of interactive-magazine creation with InDesign as a lead-in to the following two chapters, which delve into the nuts and bolts of interactivity using Adobe Digital Publishing Suite and its principal competitor, Aquafadas Digital Publishing System.

In this chapter you will learn about the following:

- Planning an Interactive Publication
- Creating Multiscreen Layouts
- Adapting Designs to Various Layouts and Tablets
- Using Liquid Layout Behaviors
- Employing Scrolling Page Regions and Content Replacement
- Utilizing Hyperlinks of All Types
- Inserting Audio and Video
- Integrating Live Web Content

Chapter 13: Creating with Adobe Digital Publishing Suite

Adobe Digital Publishing Suite is the tablet publishing system most everyone has heard about. It's also the most widely used with more than 850 publishers using it to produce more than 1,700 titles worldwide. This capable system offers strong interactivity integrated tightly into InDesign.

In this chapter you will learn about the following:

- Starting a Publication
- Adding a New Layout
- Live-Testing Your Publication
- Panning and Zooming Images
- Creating Slideshows and Galleries
- Incorporating Audio and Video
- Creating 3D Panoramas and spaces
- Using Content Replacement
- Including Offline HTML and Widgets
- Applying the Finishing Touches

Chapter 14: Creating with Aquafadas Digital Publishing Suite

Competing head to head with Adobe Digital Publishing Suite is a comprehensive but relatively unknown challenger from France, Aquafadas Digital Publishing Solution. Although not as popular as Adobe DPS, Aquafadas offers a much richer set of interactive elements for incorporation into digital magazines. Also working as an InDesign add-in, the Aquafadas system is more polished and professional looking than Adobe's DPS tools, and, in nearly all other aspects, Aquafadas is arguably a better, more intuitive, more feature rich system for producing digital magazines.

In this chapter you will learn about the following:

- Installing Aquafadas DPS
- Starting a Publication
- Adding a New Layout
- Live-Testing Your Publication
- Panning and Zooming
- Understanding Picture-Enrichment Options
- Creating Slideshows and Galleries
- Incorporating Audio and Video
- Incorporating External Publications
- Building Read-Along Text
- Using Content Replacement
- Adding Live Web Content
- Including Offline HTML and Widgets
- Adding Actions & Advanced Buttons
- Applying the Finishing Touches

CHAPTER

1

eReading Devices & Their Capabilities

The first thing to understand about digital publishing is what devices people use to consume digital content, including what types of publications each device class can support, how people use the devices, and where ereading hardware is headed. You will find a startling array of devices on the market, but ultimately there are only four classes of devices on which digital publications are consumed.

In this chapter, you will learn about the following:

- Device Classes
- eReaders
- Tablets
- Computers
- Mobile Phones
- Hybrid Devices
- Future Devices
- Designing for Devices

Device Classes

There is an ever-increasing variety of devices on which to read electronic publications. And the more devices that are out there, the more frequently those devices are upgraded, competing with one another, forcing each other to innovate and improve, and driving the price of ereader ownership lower and lower while making electronic content more and more accessible to consumers. That's good for consumers and for content producers like you and me; competition in ereader hardware, ereader software, tablets, and other devices does most of the work of opening up markets for us. More of these devices are being devised and released every month. In fact, by the time you've finished reading this sentence, there will be another—Whoop! There it is! BestBuy.com just listed the newest, greatest ereading device to kill all prior devices! And now—the newest, greatest to kill *that* one!

Of course, there's also a downside to the feverish pace of device creation and improvement: Creating content that takes full advantage of, or even just fits perfectly on the screen of, the current or next generation of devices is like trying to shoot a bull's-eye while blindfolded and hanging from the flank of a bucking bronco.

Stay Up to Date as the Landscape Changes

To keep pace with the changes in the digital publishing landscape, I provide periodic updates on the latest devices (and many other sections from this book) on the book's website, http://abbrv.it/DigiPubID.

As with all media and business revolutions, the bronco will eventually be tamed and set upon a stable, predictable path around the corral, making bull's-eyes easier to land for everyone. That happened with the Desktop Publishing Revolution in the 1980s as well as the Web Publishing Revolution in the late 1990s and early 2000s. For now, the best strategy for landing bull's-eyes in this Electronic Publishing Revolution lies in understanding *classes* of digital content consumption devices and the individual characteristics of devices in those classes.

But first, Table 1.1 presents a quick reference of device class capabilities. The specifics of the various publication formats are discussed in Chapter 2, "Learning About Digital Publishing Formats."

Table 1.1: Device Class Characteristics

	eReaders	Tablets	Computers	Phones
Can display EPUB/Kindle ebooks	✔	✔	✔	✔
Can display interactive PDFs	◐	◐	✔	◐

Can display digital replicas	◐	✔	◐	
Can display digital magazines		✔	◐	◐
Can display HTML5 epublications	◐	✔	✔	✔
Has full-color display	◐	✔	✔	✔
Can display dynamic, server-fed content	◐	◐	◐	◐

Legend:

✔ Yes, the device class supports this option.

◐ The device class supports some but not all features of the option, and/or some devices in the class supports the option while others do not.

eReaders

The first class of digital content-consumption device is handheld ereaders. These devices support the inclusion of imagery and media to one degree or another, but they're built for reading novels, novellas, short stories, newspaper articles, and other text-heavy content. You wouldn't, for example, target ereaders for your coffee-table picture book or image-laden fashion magazine.

There are more brands and models of handheld ereaders available than most people would imagine, though only a few manufacturers are building new ones. Amazon and Kobo are the only ones still building handheld ereaders with any significant market share after Sony quit the business and NOOK keeps code-blueing on life support (see the sidebar "A Shrinking Field of Play"). Even without many new devices entering the market, sales of the offerings that are out there are still healthy. Consumers love their ereaders—new or old—even carrying them in addition to iPads and other tablets.

A Shrinking Field of Play

When I published the first edition of *ePublishing with InDesign* in 2012, there were more manufacturers of handheld ereaders than there are now.

Sony was actively promoting its Sony Reader devices—several different sizes—and offered its own ebookstore to compete with the likes of Amazon's Kindle and Apple's iBookstore. In March 2014 Sony ended its line of Sony Readers and closed the Reader Store, transferring customer accounts to Canadian competitor Kobo. Unfortunately, the ebooks and other content customers had purchased from the Reader Store was not transferred; access to all content was simple cut off.

Back in 2012 I predicted in these very pages that Barnes & Noble's NOOK, then massively popular and the leading competitor to Amazon's Kindle, would die within five years. I was a little too generous in my prediction. NOOK effectively died in 2013. Barnes & Noble tried to resurrect it twice (so far) by turning it from a dedicated ereader into a full-fledged Android-based 7-inch tablet with a focus on, but not limited to, ebook consumption. NOOK Tablets were sold at a deep discount, attracting mostly DIYers who rooted the devices, wiped away all NOOK-related content, and used them as standard Android tablets. Later, after briefly and publicly considering ending NOOK, Barnes & Noble offloaded manufacturing to Samsung. The two re-released the NOOK as the "NOOK Powered by Samsung." Like the previous iteration, this new version was 7-inch Android tablet with all the capabilities of a good Samsung tablet while funneling ebook, movie, and music consumption to Barnes & Noble's electronic store. Even Samsung's popular hardware and customized version of Android couldn't attract enough buyers to save the NOOK. As of this writing, though NOOK is still for sale, a few Barnes & Noble stores have replaced the large NOOK kiosk with more book tables.

Figure 1.1 shows a number of ereaders in active use—and being actively sold and supported by their manufacturers—in 2015. These are only a portion of a much larger selection of handheld ereaders in use around the world.

Figure 1.1: A selection of current generation handheld ereaders

Upper row, left to right: Kindle PaperWhite, Barnes & Noble NOOK GlowLight, Kobo Aura, Ectaco JetBook Color, an Bookeen Cybook Ocean. Lower row, left to right: BQ Cervantes, iRiver Story HD, Hanlin v60, Onyx BOOX T68, and PocketBook Touch Lux 2.

Photos courtesy of the device manufacturers.

The popularity of ereaders lies in their simplicity. They don't play movies or have lots of apps. The most used ereaders don't even have color screens; many of the biggest manufacturers do offer color versions of their ereaders, but those are far outsold by their greyscale or black-and-white counterparts. Instead, using proprietary technology and a lack of backlighting, ereaders provide on a handheld screen a remarkably close replica of a printed book page—one that is no more difficult for, or taxing on, the human eye while reading for extended periods than ink on a novel's pulp page. Of course, ereaders weigh very little—typically 6 to 8 ounces—and can contain thousands of books, making them far more convenient to tote around than a stack of printed books. Bookmarking, full-text searching, instant word and phrase definitions, user-defined type size, week- and month-long battery lives, and the ability to browse and purchase a vast array of modern books and an ever-increasing library of older titles round out a list of the top advantages over printed books cited by ereader owners.

Tablets

Tablet computers are the youngest class of digital content-consumption device, but in only a few years they have already become ubiquitous. Contrary to popular belief, the device class was not devised by, and did not originate with, Apple; tablets and slates have existed in several forms, most running the Windows Mobile operating system, since the turn of the 21st century. They were, however, very low-profile and marketed primarily to industrial, medical, and high-tech enterprise customers, all but completely ignoring the rest of the potential market. It wasn't until the iPad's sleek form factor and consumer-targeted advertising campaign that the general public saw tablets as potential everyday devices. From there, businesses began adopting them, too—an inverse of the way prior tablet devices (also called *slates*) were marketed.

Kicked off (officially) by the release of Apple's iPad in the spring of 2010, the tablet market has exploded with additional operating systems (see the "Tablet Operating Systems" section) and dozens of different devices being released—and purchased—at breakneck speeds. (See Figure 1.2 for a small sampling of such devices.) In general, tablet devices offer consumers a smaller, lighter device to tote around than a laptop while sacrificing little of the convenience and power of having a laptop on hand. From a tablet device a person can read and compose email, write and collaborate on documents, play

games and watch videos, surf the web and interact with social networks, participate in video conferencing, work with database content such as medical records or pharmacy dispensary systems, manage point-of-sale and retail inventory, edit and organize photographs, and even create and edit new graphic, art, or technical designs. In other words, tablets are for many professionals and students a replacement for laptops and a replacement for *any* standard computer for the average consumer whose computing requirements are limited to these abilities (which is most consumers).

Figure 1.2: A few of the many currently available tablets and mini-tablets

Clockwise from top-right: Amazon Kindle Fire HDX 8.9, Microsoft Surface Pro 3, NVidia Shield Tablet, Apple iPad A 2, Google Nexus 9, and Samsung Galaxy Tab 4.

Photos courtesy of the device manufacturers.

Though tablets were once limited to running only *apps* not *applications*, Microsoft's Surface Pro 3, released in late 2014, proved that a full-fledged laptop can be contained within a tablet form factor when it demonstrated the ability to run power-hungry Adobe Photoshop and full versions of Microsoft's Office applications. The Surface Pro 3 then inspired Apple and other mobile operating system manufacturers to follow suit with their own bigger, more powerful tablets. Still, as of this writing, the manufacturers are still working out the kinks for laptop-powerful tablets, especially with regard to building hybrid operating systems that combine the power of full computers with the ease of use consumers love with designed-for-mobile operating systems like Apple iOS and Android.

Tablets offer support for the largest selection of digital publication formats, including those (such as interactive magazines and digital replicas) that were created specifically, and solely, for tablets. (We'll get into the topic of formats in Chapter 2.) Digital publishers who want to compete in today's and tomorrow's worlds need to target their publications to tablets *now*. The early-adopter mind-set ran tablets in 2010 and 2011. Now, all of your readers have tablets, and many of them read ebooks exclusively on tablets. Tablets are consistently one of the biggest sales items of any holiday shopping season, followed

closely by handheld ereader devices.

Because so many people read ebooks and digital publications on tablets, while many such formats simply can't be consumed on full computers, it's crucial that we, as digital publishers, closely watch the evolution of laptop-powerful tablets. Microsoft's Surface Pro 3, for example, cannot, as of this writing, display interactive magazines or digital replicas natively or with any third-party app or application. Will next generation laptop-powerful Apple and Android-based mobile devices be able to display all the same content their current tablets and smartphones can?

eReading on Tablets

When compared to handheld ereaders, there are pros and cons to tablets for ereading.

First, tablets support a much wider variety of epublication formats. With installable or preintegrated versions of iBooks, Kindle, NOOK, Kobo, Google Play Books, and more, the entire world of ebooks is available to tablet owners (Figure 1.3). And tablets can have several of those ereader applications and libraries installed at the same time, putting every ebook for sale at Amazon, Barnes & Noble, Kobo, Google Play Books, and so on (and on iPads, iBooks) readily available on one device. Typically users stick with one, though, especially if one is preinstalled when they purchase the tablet, like iBooks is on the iPad, Kindle is on Amazon's Fire tablets, Kobo is on the Vox, and Google Play Books is on most Android tablets. Thus, if you publish ebooks, make them available for sale in all of those stores and consider carefully whether it's ultimately worth it to participate in an exclusivity program offered by one ebookstore or another.

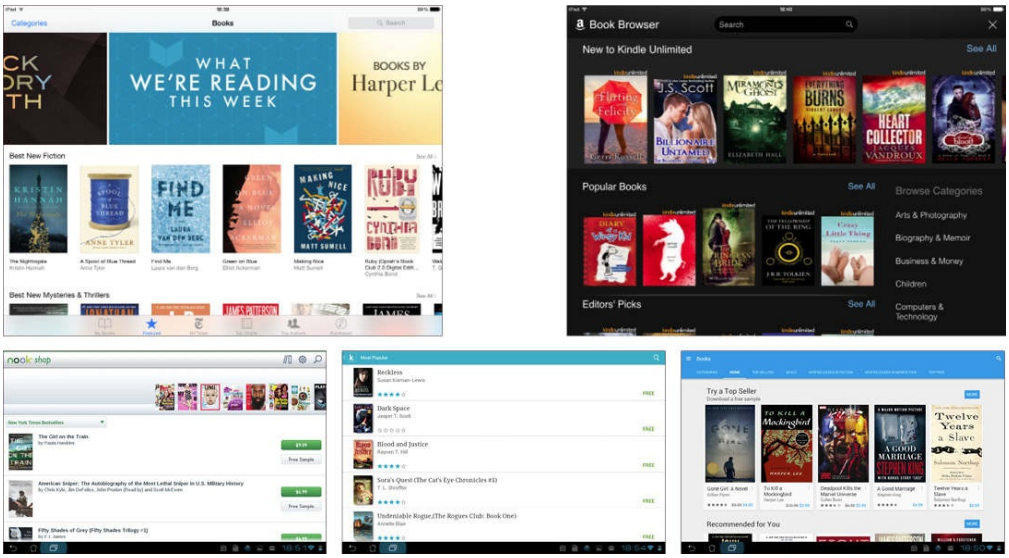


Figure 1.3: Various ebookstores available on tablet devices

Upper row, left to right: iBooks and Kindle Book Store. Lower row, left to right: NOOK Store, Kobo Store, and Google Play Books.

The act of reading for extended periods on tablets is much the same as reading on a computer and nowhere near as comfortable for most people as reading on handheld ereaders. Handheld ereaders typically don't include *backlighting*. (eReaders that do include illuminated screens, like the Kindle Paperwhite and Kobo Aura HD, employ lighting systems developed specifically for greyscale ereader displays and to be easy on the eyes.) The screens on these devices are usually anti-glare, and they use proprietary display technology to simulate the look of real ink on real paper, which enables them to be comfortably read in all the same lighting conditions in which printed books are read comfortably. Computers and tablets are backlit, which is why they strain the eyes after a while, and in order to display multimedia, games, and the widest array of content, they use a completely different *anti-aliasing* technology that cannot simulate ink on paper. Tablets, being portable and almost always bearing polished glass faces, often also carry a glare or reflect too much light for comfortable extended reading. Tablets just are not ideally suited to the act of reading long, continuous flows of text like novels and other common ebooks. Despite the science disproving the comfort of reading on tablets, 57 percent of iPad owners report that they read ebooks on the iPad (SalesForce *2014 Mobile Behavior Report*, October 2014).

Magazine, catalog, yearbook, newspaper, and comic book reading is another matter entirely. While the same limitations of backlighting, lack of E Ink-optimized text display, and screen glare still exist no matter what type of publication one is reading on a tablet, these types of publications are not long, continuous, text-only reading experiences. They're usually visually rich layouts augmenting copy with color, imagery, multimedia, and, in the better ones, touch interaction. Tablets are ideally suited for displaying these media-rich publications because the media richness was built specifically *for* tablets, and consumers adore reading, watching, and interacting with digital magazines, catalogs, yearbooks, newspapers, comics, and even "enhanced" ebooks that go beyond the norm. Figure 1.4 shows a digital replica–format publication (*Redbook*) as viewed landscape; an app-based enhanced ebook (*Rudolph the Red-Nosed Reindeer*) that includes hotspots, read-to-me, and auto-page capabilities; a highly interactive digital magazine-format periodical (*National Geographic*) containing animations, video, hotspots, panoramic pictures, 3D-rotatable imagery, and more; a digital catalog (Brookstone) using TheFind Newsstand app, which allows customers to order directly from within the catalog; and an HTML5-based newspaper (*USA Today*) including scrollable and slideshow regions and a preference system that uses the user's desired locations for the weather, sports leagues for scores, and other customizable content. (Go, Bruins!)

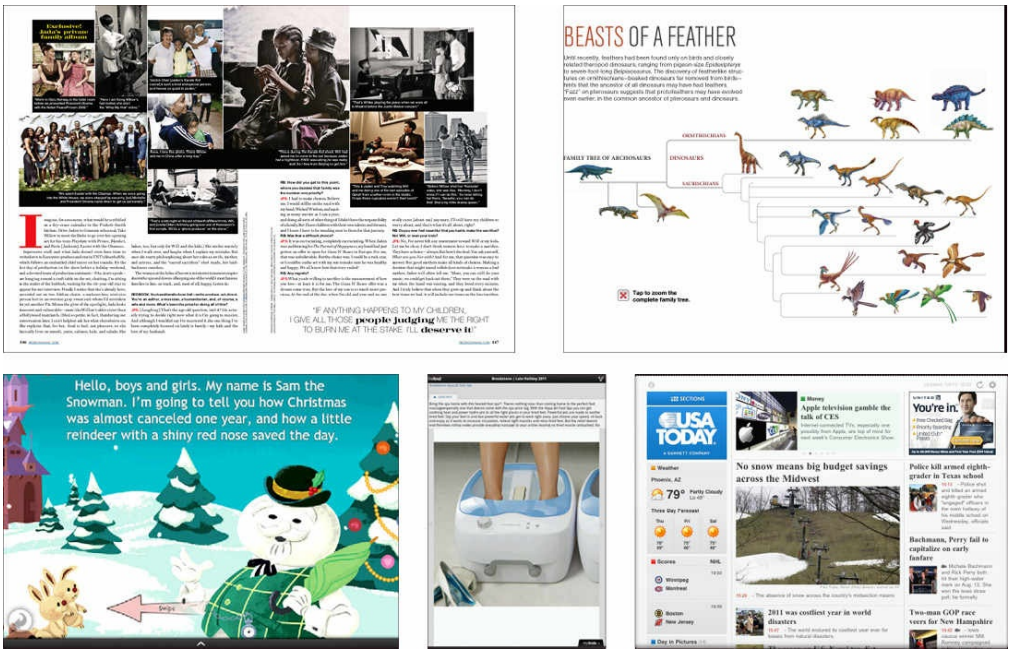


Figure 1.4: Tablets displaying media-rich publications

Upper row, left to right: *Redbook*, August 2011 and *National Geographic*, February 2011. Lower row, left to right: *Rudolph the Red-Nosed Reindeer*, Brookstone Catalog, January 2012, and *USA Today*, January 4, 2012.

If you intend to publish visually rich or media-rich periodicals or other publications, tablets are, and will increasingly be, the primary device class you should target.

Tablet Operating Systems

There is a variety in tablet operating systems driving tablets and give them their capabilities. I'd like to take a moment to run through what these operating systems are, what devices they power, and some of the important characteristics of each that a digital publisher should know.

Let's start with a quick market share breakdown of the major tablet operating systems. Figure 1.5 is a chart providing a simple breakdown of web traffic by tablet operating system from January 2014 through January 2015. Using this data we can reasonably infer tablet market share.

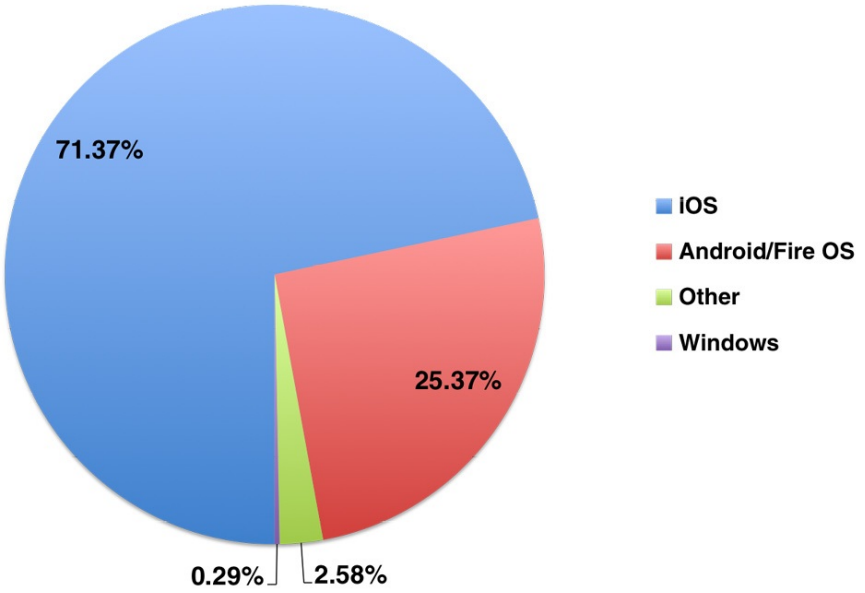


Figure 1.5: Web traffic by Tablet OS

Web traffic by tablet operating system from January 2014 through January 2015.

Source: StatCounter Global Stats (February 2015)

Apple iOS

iOS runs all of Apple's mobile products, not just the iPad but also the iPhone and the iPod Touch (which is, for all intents and purposes, an iPhone without dialing and texting capabilities).

Apple tightly controls both the hardware and operating systems on its mobile devices, as with its computers. All versions of iOS and all iOS devices may install apps from the Apple App Store and, beginning with iOS 4, iBooks. All content available through the App Store and iBooks is strictly regulated by Apple. Apps and epublications must pass through a review process prior to being made available to iOS users, and Apple reserves (and has often exercised) the right to remove apps or publications, for any reason and at any time, from the App Store and/or iBooks. Rumors abound as to reasons every time Apple denies or removes a particular app or ebook, but in general Apple wants content available through iOS to be "family-friendly," legal, and of "the highest quality." The subjectivity of these descriptions has led to many dissatisfied publishers. Ultimately, iOS is what is called a *walled garden*: Only Apple-approved content gets in, which creates a predictable and consistent user experience.

EPUB and PDF digital documents *can* be loaded onto iOS devices without going through iBooks, though the process is too complex for the average iOS device consumer and thus isn't viable for a widespread publication distribution method. Individual users and corporate IT departments can add EPUB and PDF files to iTunes or third-party iOS-management applications on their computers, which then pushes those files to the iPad or

iPhone iBooks app during device-computer synchronization. Similarly, EPUB and PDF files can be added to individual's iCloud online storage service and then synchronized to an iOS device without the need to physically connect the device to a computer.

The iPad (all versions) is the gold standard in tablets and tablet publishing (Figure 1.6). It has the highest market share among all tablets—twice that of all Android tablets combined—and is consistently ranked as being the fastest, most responsive user interface, though several Android tablets are often praised as having more user-friendly and intuitive user interfaces.

Figure 1.6: iPads

iPad Air 2 (left) and iPad Mini 3 (right).

Photo courtesy of Apple

Android OS

Android is the big competitor and formerly would-be "iOS killer" in both the smartphone ("iPhone killer") and tablet ("iPad killer") markets. As the tablet and

smartphone markets have matured, showing that both iOS and Android can survive with healthy market share, the “iOS killer” moniker, once thrown around weekly by tech journalists, has all but disappeared. Both iOS and Android are are popular platforms, running numerous devices, with user bases measured in the hundreds of millions.

Created and sponsored largely by Google (as a member of the Open Handset Alliance), Android is an open source operating system free from licensing fees, which enables many tablet manufacturers use it—stock or customized—in their devices (see Figure 1.7). Samsung is arguably the largest, best-selling manufacturer of Android tablets and smartphones, with Google itself, Amazon, Motorola, and dozens of other manufacturers also competing based on hardware capabilities and user-interface tweaks.

Figure 1.7: A sampling of Android-powered tablets

Clockwise from top-right: Google Nexus 9, ASUS Eee Pad Transformer, Dell Venue 8 7000, and Samsung Galaxy Tab S.

Photos courtesy of the device manufacturers

The Google Play app store (formerly Android Market) is open, enabling any publisher or developer to distribute her creation to all Android tablets and smartphones. This is a double-edged sword. Unlike with iOS-based content, there are no reviewers or censors to

clear content through and no issue with releasing apps and publications that may impact the financial interests of the platform maker. However, the openness of the Play Store and its Play Books sub-store can create the impression that the selection of apps and publications is of an inferior quality to those available in Apple's strictly controlled App Store and iBooks. Regrettably, there's some truth in that perception. The Google Play Books store has seen a flood of adult-content apps and publications, many included under ambiguous or intentionally misleading names, as well as an avalanche of unwanted, often duplicate ebooks. Public domain classic books such as *A Tale of Two Cities*, *Moby Dick*, *A Christmas Carol*, and hundreds of others are frequently converted to ebook format of varying qualities by unassociated individuals and placed in the Google Play Books store in hopes of making a quick, often undeserved buck. On the other hand, the openness of Google Play creates more variety in apps, more choice, and access to apps and publications that Apple wouldn't allow on iOS because the functionality or content might compete with Apple's or its partners' interests. The average Android app and publication also costs significantly less than its iOS equivalent in head-to-head comparisons.

Because Google Play is open to any content a developer wants to publish, and because the Android operating system is being actively improved by so many different device manufacturers and programmers, it has real potential to improve faster and more often than iOS. Thus, it's entirely possible that Android-powered tablets could at any time take top market share from iPad even though history shows iOS maintaining dominance. From the perspective of an epublisher, that means you must take Android seriously, and even if you don't target Android readers right now (a mistake in my opinion because Android tablets typically account for 30–40 percent of the tablet market), you must at least be ready to do so at a moment's notice.

Windows

Microsoft Windows has been powering mobile devices for more than a decade. First there was Windows Mobile, which ran on PDAs—personal digital assistants, not public displays of affection; people do that with Apple or Android, but no one commits public displays of affection with Microsoft products, not even bored employees of the always empty Microsoft Stores. Later, Windows Mobile powered smartphones, but with the release of Windows 8, the "Mobile" and "Phone" monikers were dropped, leaving a hybrid mobile and desktop Windows 8 (Figure 1.8).

Figure 1.8: A Microsoft Surface Pro 3 running a full version of Adobe Photoshop

Photo courtesy of Microsoft

The biggest distinction between Windows-powered tablets and its competitors is Windows's ability to run full applications, not just apps. In fact, at least on the array of tablets identified as "Pro" models (e.g. the Microsoft Surface Pro 3), Microsoft boasts that if you can run it on a Windows 8 or 10 desktop computer, you can run it on a Windows tablet. That includes full versions of Microsoft Office applications like Word, Excel, and PowerPoint rather than the limited-functionality Office knockoff apps you'll find available for use on the iPad and Android tablets. You can also run full graphics software like InDesign; Adobe even collaborated with Microsoft to build a touch-optimized optional user interface for Photoshop CC (late-2014 edition and later).

Combine Windows (Pro) tablets' full application support with their heretofore unheard-of multitasking and split-screen application-usage features, and you have a tablet operating system steadily grabbing market share among professionals and the enterprise.

Note

With earlier editions of Windows-powered mobile devices Microsoft offered two distinct versions of Windows, Windows RT and Windows, with devices using the former bearing the suffix "RT". While non-suffixed devices were the full hybrid mobile- and desktop-version of Windows, RT designated that the device used the less powerful, mobile-only Windows RT version that could run mobile apps but not desktop applications. The naming scheme lead to a great deal of consumer confusion as well as many disappointed Windows RT device owners who were expecting the power of non-RT devices. Microsoft has since cleared up all confusion and consternation by adopting the naming scheme of "Windows" for lower-powered tablets as well as fully-powered desktop and laptop computers while the laptop-powerful tablets get the "Windows Pro" appellation.

Yes, that was sarcasm. Leave it to Microsoft to establish confusion as a standard, and then, just as people are finally getting a handle on the confusion, reverse the standard to create more confusion.

Amazon Fire OS

In late 2011 Amazon debuted a potent entry into the tablet market with its 7-inch Kindle Fire tablet, which has since grown to a line of tablets of various sizes. Fire runs on Android, but it's a modified implementation with a uniquely Amazon user interface hiding all but a few small parts of Android (see Figure 1.9). In fact, Amazon doesn't even promote the fact that Fire uses Android; customers don't even think about the Fire's operating system, but those who do just think of it as Amazon's original creation unencumbered by any opinions—negative or positive—associated with Android. With the second version of the Fire tablet Amazon branded their heavily modified version of Android the Fire OS, now running on Android 4.0 instead of the first generation Fire's Android 2.2 implementation.

Figure 1.9: The Kindle Fire

Built on Android but with a twist.

Photo courtesy of Amazon

Now a line of tablets ranging from 6-inches up to 8.9-inches and offering a special Kids Edition with an even more deeply modified user interface, Fire tablets are positioned as entertainment device. Amazon's marketing states but downplays that Fire OS devices (except the Kids Edition) are as powerful as any Android tablet, including the ability to handle productivity and work tasks; instead, Amazon emphasizes the entertainment value of Fire OS devices, focusing on content, offering books, movies, music, and periodicals exclusively from Amazon's library. The Fire OS itself is a custom user interface on top of Android, limiting user access to Amazon's *own* app store rather than to Google Play, thus eliminating the flooding of bad content in favor of a curated selection. Thus, Fire OS is an

Android-powered walled garden like iOS but backed by a much larger, long-established, curated collection of Amazon-approved apps, ebooks, movies, music, and more.

Amazon did everything right with the first version of the Fire, because by February 2012, only three months after its debut, the Kindle Fire had captured over 50 percent of the market among all Android tablets (comScore April 2012). Since then, market share has fluctuated, but always remained strong for Fire OS devices, especially as head-to-head competitor NOOK from Barnes & Noble has struggled and ultimately become a non-threat.

Moreover, Amazon has not limited Fire OS and its access to Amazon's books, periodicals, and other content to tablets. Although a resounding failure by all significant measurements, the first generation Fire Phone in 2014 showed that Amazon continues to innovate and seek new platforms for its greatest asset—its vast inventory of content. The latest Amazon product, Fire TV, capitalizes on the exploding streaming media, *cord-cutting* movement. With settop boxes and an HDMI-connector dongles, Fire TV devices put Fire OS and all its content, including ebooks and periodicals, on consumer televisions.

So significant is Amazon's position in the digital content distribution market on tablets and other devices that I strongly recommend digital publishers think of Fire OS as a completely different operating system separate not only from Android but from Kindle as well—the way consumers think of it. When publicizing that their epublications are available for or "run great on" iPad and Android tablets, I recommend they list Amazon's platforms by name as well. For example: "built for iPad and iPad Mini, Android, Fire OS, and Fire TV." With ebooks I suggest a similar approach, for instance "available for Kindle, iBooks, Kobo, NOOK, Google Play Books, Fire, Fire TV, and other ebookstores."

Obsolete Mobile Operating Systems

Previous editions of this book discussed other mobile operating systems such as the BlackBerry Tablet OS, webOS, and Android 2.2 have been removed because they're as relevant to the world as the cast of *Jersey Shore*. A few devices running these defunct mobile operating systems are still in use, but their combined activity in consuming modern epublications is now such a small percentage that it's insignificant, like the careers of the cast of the aforementioned TV show.

Tablet Sizes

Another important factor to consider when designing for tablets is their screen sizes. Because there are not yet any standards, screen sizes vary wildly, though two brackets have become common. First you have full-sized tablets, those with screens around 10 inches diagonally, with resolutions ranging between 2048×1536, 1280×800, and 1024×768. The second common bracket is about 7 inches diagonally, with screen

resolutions in the range of 1024×600 to 800×480, though some, like recent versions of the iPad Mini, can match the resolution of full-sized tablets. I call tablets in the 7-inch range mini-tablets, as they strike me in form and observed consumer usage as being halfway between a smartphone and a full-sized tablet. Of course, there are *phablets* like the Samsung Galaxy Note, so named because they're too large to be phones, too small to be tablets… Oy! Things have gotten complicated!

Although tablets (and phablets) come in 5-, 6-, 8-, 11-, and 12-inch sizes, their screen resolutions typically match either 7- or 10-inch models. Thus, digital publishers and designers need to focus their energies on those two central sizes (see Figure 1.10).

Figure 1.10: Comparing different device screens at scale.

Left to right: an iPhone 4S, an HTC Evo 3D, a Kindle Fire, an iPad 3, and an ASUS Eee Pad Transformer.

Full-sized tablets include the original iPad and iPad Air line (9.7 inches), Samsung Galaxy Tab S (10.5 inches), ASUS Eee Transformer line (10.1 inches), and Motorola XOOM (10.1 inches); they offer a pretty comfortable reading experience for media-rich digital publications. Even with interactive replicas, which are basically print magazines displayed on a tablet screen and don't reflow to fit the screen, reading one page displayed full-screen is comfortable for most people. Reading is almost impossible without pinch-zooming when a full spread is shown on the tablet screen, though. In my experience, full-sized tablets are viable replacements for most tasks formerly handled by laptops, which is what makes them marginally more popular than mini-tablets.

On the other hand, mini-tablets like the iPad Mini, the Kindle Fire HD, Samsung Galaxy Tab 7, the Kobo Aura HD, and the Google Nexus 7—all 7 inches—are even more portable than full-sized tablets. Many people love the small form factor, easily deposited in a purse, backpack, or large coat pocket. Typically mini-tablets are used for media viewing (Netflix, YouTube, Hulu, and so on) and general Internet usage (browsing, social media, email), but owners of these devices just as often will read digital publications on them. Naturally, ebooks work great on these devices because mini-tablets are about the size of handheld ereaders, which are themselves about the size of paperback books.

Although many digital replicas are available on mini-tablets, media-rich digital publications don’t often sell well on these devices because such publications tend to be designed specifically for larger screens and resolutions. This leaves mini-tablet owners feeling left out by many publications. For epublishers, that presents an opportunity. Given the popularity of smaller tablets, I strongly suggest designing versions of publication specifically to fit 7-inch screens.

Computers

You might be tempted to skip this section, thinking it’s a no-brainer that standard computers would support all the digital publication classes and be ideally suited to display any type of digital publication you might want to publish. If that’s what you’re thinking, you’d be in error.

True, there are software-based and in some cases even web-based ereaders available. You can download the Kindle, NOOK, or Kobo ereader software free for Windows, Mac OS X, and even for many flavors of UNIX. Mac OS X offers iBooks natively. You can also read many ebooks directly in your web browser, without installing any software, such as with Amazon’s Kindle Cloud Reader. Dozens of other ebook readers—some commercial, most free or open source—abound as well. Adobe even makes one, called Adobe Digital Editions. Despite the selection of ereader software, the big stores like Amazon’s Kindle, Apple’s iBooks, and Kobo dominate ebook reading on desktop, laptop, and netbook computers just as they rule the handheld ereader and tablet classes (see Figure 1.11).

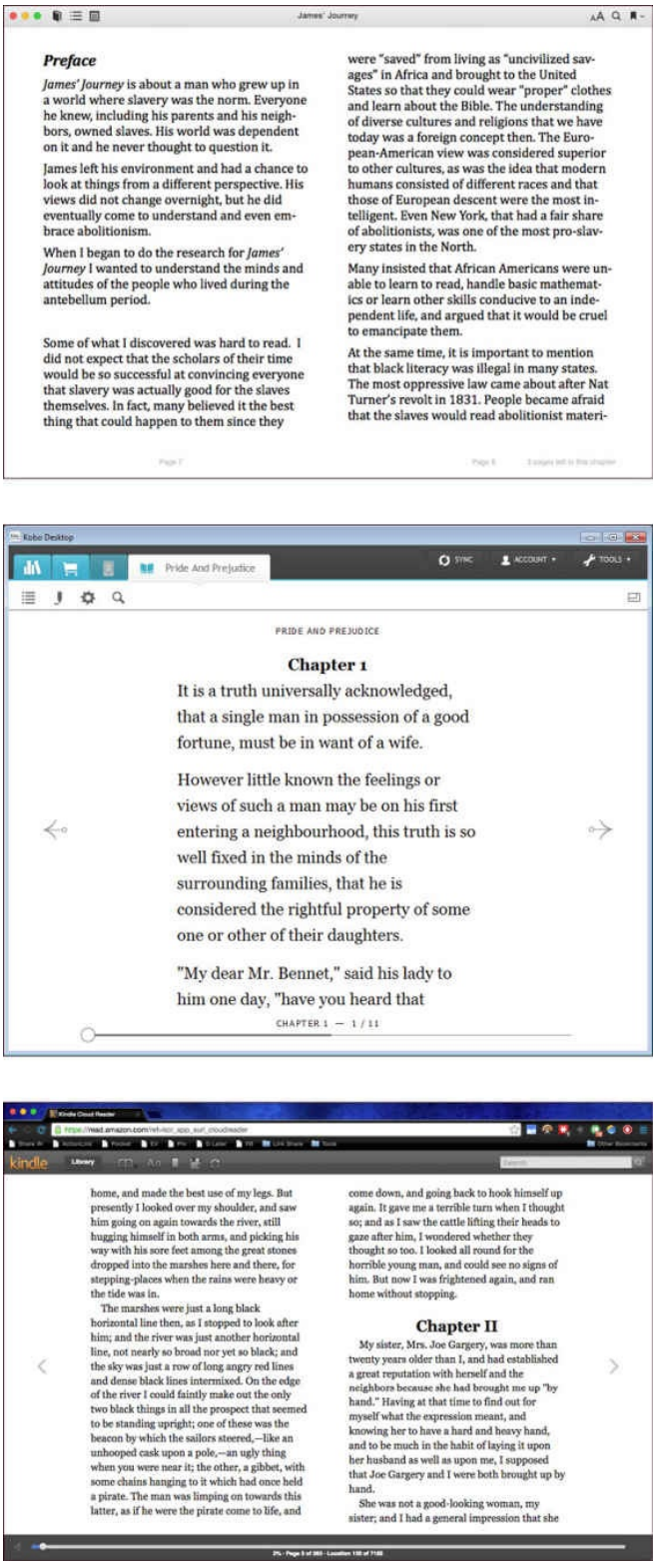


Figure 1.11: Examples of desktop ereaders

Top to bottom: iBooks on Mac OS X (*James' Journey* by Helen Lundström Erwin), Kobo Desktop on Windows (*Pride & Prejudice* by Jane Austen), and Kindle Cloud Reader running inside Google Chrome on Mac OS X (*Great Expectations* by Charles Dickens).

As reading ebooks becomes more popular in general, so does the portion of consumers reading ebooks on computers. This is deceptive, however, because that's the smallest and slowest-growing segment. More and more people are reading ebooks, true, and naturally many of them start out using their office, school, or home computers for that

purpose. However, computer monitors are not built to comfortably accommodate extended periods of reading (trust me, I have to write and edit this book on standard monitors). Eventually, the majority of consumers who read more than the occasional ebook tend to purchase either a handheld ereader or a tablet, doing the bulk of their reading on those devices. Thus, as you begin to create ebook content, you may be tempted to design for the flexible, high-resolution, full-color world of computer-based ereaders, but the reality is that only a small portion of your audience is likely to view your publication within that environment. The rest will be using, in order of frequency, the following: handheld ereaders, tablets, and mobile phones.

The shift away from standard computers for reading digital content is being sped along by the fact that app-based interactive magazines are all but completely unusable on computers. *Sports Illustrated*, *Oprah Magazine*, *Maxim*, *Popular Science*, *Wired*, and a host of other big-brand magazines publish digitally only or primarily in formats that work on tablets, as *folios* or *apps*. Adobe DPS, one of the leading interactive magazine publishing systems, offers publishers the option of making their media-rich digital magazines (and catalogs, enhanced books, and so on) to be viewed on computers in a web browser with the Adobe Content Viewer for the Web. The experience isn't perfect, of course, because such publications are built for the touchscreen environment of tablets, but it is a way to deliver the same content to computers—Windows, Mac, UNIX, Chrome, and so on—without having to build a separate desktop-compatible version. Still, most consumers prefer to read such publications in their native environment of tablets. Many publishers, too, opt to ignore the Adobe Content Viewer for the Web option.

In short, reading for long periods of time on a computer isn't ideal, but we all do it (you've seen the web, right?). Publishing ebooks to computers is easy; in fact, the same files created for handheld ereaders and tablets typically work just fine on computers without any extra effort or additional formatting. PDF-based publications work better and with greater support for interactivity on computers than on mobile devices (except those mobile devices using full laptop-powerful operating systems). Digital replicas and folio- or app-based interactive publications are seldom usable on computers. We'll talk more about these different types of publications and the pros and cons of each in Chapter 2, "Learning About Digital Publishing Formats."

Mobile Phones

Because one of the main characteristics of standard (i.e. EPUB-format) ebooks is their ability to reflow and adapt to the size of any screen, many people choose to do some or all of their ebook reading on mobile smartphones (see Figure 1.12). To be specific, 43% of smartphone owners read on their phones daily; 57% read daily on their tablets (Source:

Salesforce.com's *2014 Mobile Behavior Report*). (Personally I can't read more than a few passages from a book on a phone without risking carpal tunnel syndrome. I read rather fast, and with so little text fitting on a phone screen, the result is that I'm nearly constantly swiping to advance pages.)

THE CRYSTAL CRYPT

By PHILIP K. DICK

Stark terror ruled the Inner-Flight ship on that last Mars-Terra run. For the black-clad Leiters were on the prowl ... and the grim red planet was not far behind.

"Attention, Inner-Flight ship! Attention! You are ordered to land at the Control Station on Deimos for inspection. Attention! You are to land at once!"

The metallic rasp of the speaker echoed through the corridors of the great ship. The passengers glanced at each other uneasily, murmuring and peering out the port windows at the small speck below, the dot of rock that was the Martian checkpoint, Deimos.

"What's up?" an anxious passenger asked one of the pilots, hurrying through the ship to check the escape lock.

"We have to land. Keep seated." The pilot went on.

"Land? But why?" They all looked at each other. Hovering above the bulging

Figure 1.12: Reading on a Smartphone

Amazon Kindle app on a Samsung Galaxy S5 (*The Crystal Crypt* by Philip K. Dick)

iBooks dominates Apple's iPhone and iPod Touch while Kindle dominates everything else and boasts a large user base on iPhones and iPod Touches. One might expect Google Play Books to be the standard on Android devices where it's preinstalled, but its library isn't quite as large as Amazon's or Barnes & Noble's. Neither is iBooks', but that's changing rapidly. Through the NOOK and NOOK Kids apps, Barnes & Noble can also be found on a large number of mobile phones from all manufacturers. Kobo, too, maintains a strong presence. Of them all, only iBooks is device-specific; even Google Play Books is available on Google's own Android as well as iOS.

Most of the ereader apps for all devices also support fixed-layout and picture ebooks (discussed in great detail in Chapter 8, "Creating Fixed-Layout eBooks"), though anything but fully reflowable ebooks is harder to read on the small screen of a mobile phone than on any other device. Consequently, very few people will use a mobile phone, even if they don't have ready access to a larger-screened device, to read more advanced, more interactive, or fixed-layout publications. Even Apple's own fixed-layout ebooks are almost impossible to read on an iPhone. Such epublications can be specifically designed for small phone screens, but unless there's a specific need to reach phones, it's best to limit non-reflowable epublications to larger screens such as tablets and mini-tablets.

Future Devices

In the future of digital-publication delivery devices, we'll see slimmer, lighter devices; devices without practical internal storage; and devices with not just touch interaction but possibly distortion interaction, too. About a dozen different companies, from LG to MIT splinter foundations, have epaper concepts gradually coming to market. These are one-, two-, or full-color displays ranging from about 4×6-inches (the average size of a handheld ereader) up to 11×17, and they are flexible, rollable, and even foldable. The idea is that content will live in the cloud (yeah, I'm a little sick of that phrase, too, but what can we do?). Instead of storing publications on the device, epaper readers will function more like handheld ereaders do now, with an always-on, dedicated wireless connection similar to today's Kindles and other ereader devices.

With current ereaders you have to download books, stories, articles, and so on, to the device, which are kept in internal storage. Epaper will keep your books and more in the cloud—out on the Internet—and download to the epaper device one page at a time via an always-on background connection. The process will be quick; you won't notice a delay

between pages. Some of the epaper solutions under development actually hold the next page in cache so it's already there when you swipe to it. And most epaper is being developed to be as thin as just a few sheets or even a single sheet of regular copier paper. Some can be rolled up and stuck in your back pocket, while others can be folded and slipped into a wallet. Either way, when you want the latest book, magazine, catalog, or even newspaper, with up-to-the-minute article updates, you just have to open the page again.

Curved screens are making their way into our devices after years of expectation. As are flexible devices that have users actually bend flexible phones to zoom in or out on pictures, web pages, and other content and twist the phone to scroll or move through a list such as a photo album, an email inbox, or the pages of a digital magazine. Gestures, or touchlessly controlling devices by moving the hands, head, or eyes in specific ways in front of the device, are already entrenched in Samsung and other manufacturers' devices. Gesture and voice control continues to grow in popularity.

These future devices are coming—some are here already—but even with them on the horizon, the basic classes of ereading devices remain relatively stable with handheld ereaders, tablets, mobile phones, and computers.

Designing for Devices

As you write and produce digital publications, you'll begin testing on your computer just as a matter of convenience. Computer-based ebook readers, for example, can provide instant results when creating and modifying an EPUB-based publication. Just don't rely on what you see on-screen; computer-based ebook readers, even those such as Kindle, NOOK, and Kobo, which have corresponding handheld ereaders, contain display and formatting variances that won't match the ebook's presentation precisely between devices. Always test your ebook on as many devices as you possibly can before calling it ready for publication. At the very least, test your ebooks—and explore the differences in other publishers' ebooks—on each class of ereading device.

The same holds true, though often with a smaller selection of compatible devices, when creating rich-media publications. Test digital magazines on iPad, Android-powered tablets (several, if you can), the BlackBerry Playbook, and so on. PDF- and HTML5-based digital publications should be tested on, well, *everything*. All computers, the big-name tablets, and most smartphones will display PDFs and HTML5. If a device displays the format, consumers will view your publications on that device. Even if a device doesn't support a given format, consumers will *try* to view your publications on it.

Most important, know your audience. If you want to distribute a digital edition of the

Journal of the American Medical Association or a similarly specific trade or academic publication, then you know that nearly all of your affluent audience will be consuming that content on the best-of-breed tablet devices. You can then design specifically for those environments without worrying too much about also designing versions for the features and screen sizes of the second and third most popular tablets. However, if your job is to digitize a general-interest periodical, then you need to take into account, and design for, a much broader selection of devices. That may entail limiting your publication to a single semi-universal file format such as PDF or HTML5, or you may want to create several editions that take advantage of the strengths of each format—separate digital magazine format editions or interactive replicas for iPad, Fire HD, Surface Pro, and Galaxy Tab; PDF or HTML5 for desktop and laptop computers; and EPUB-based for handheld devices.

What and how you design is determined as much by your audience's device preferences as by your desires for the content, presentation, and level of interactivity of your publications. Naturally, you can elect to force your market to adopt one format or another, but that usually backfires; people have a tendency to use what they want to use and to expect your content to adapt to their devices rather than the other way around. The demise of Flash as a file format (discussed in Chapter 2, "Surveying Digital Publishing Formats") is proof enough of that.

Your Audience Already Told You What Devices They Use

If you have a website—and, really, who doesn't?—then the audience for your digital publications is already telling you what devices they use. Working on the (usually) solid assumption that most of the people who would consume your epublications will also visit your website, then all you have to do is check your site's server logs or analytics. One of the first things a web server logs is the *user agent* through which people access your site. A user agent is the combination of a site visitor's web browser and operating system. For example, you might see an entry like the following, which indicates that the user visited your site on an iPad running iOS version 3.2, a first-generation iPad that hasn't been upgraded (iPad 2s shipped with iOS version 4, iPad 3s shipped with iOS 5, and iOS 5 was released as a free upgrade for all iPads prior to the third generation).

Mozilla/5.0 (iPad; U; CPU OS 3_2 like Mac OS X; en-us) AppleWebKit/531.21.10 (KHTML, like Gecko) Version/4.0.4 Mobile/7B334b Safari/531.21.10

Use the user agent data to inform your decisions about the devices, operating systems, and file formats to support in your publications.

CHAPTER

2

Digital Publishing Formats and Their Capabilities

Like devices, epublication formats are numerous and varied, with differences, sometimes subtle, between them, but large divergences in purpose, capability and device support. Consequently, it’s most logical and productive to think of epublications in terms of format classes, with each class offering a particular combination of purpose, capability, and device support.

In this chapter, you will learn about the following formats:

- Reflowable EPUB
- Fixed-Layout
- Kindle Formats
- PDF
- Digital Replica
- Interactive Magazine
- HTML5

Quick Reference: Format Capabilities

Table 2.1 offers a quick reference to the capabilities of each epublication class to help you determine the best format for your epublications. In the future, referring to this chart may save you from a lot of rereading just to refresh your memory about what features a specific format class does and does not support.

Table 2.1: Content and Interactivity Support per Format

Interactivity Feature	EPUB	Fixed-Layout	Kindle Formats	PDF	Digital Replica	Interactive Magazine	HTML5
Reflowable text	✔		✔	◐	◐		✔
Audio	✔	✔	✔	✔	✔	✔	✔
Video	◐	✔	✔	✔	✔	✔	✔
Video—Link to specific frames or time points		✔	✔	✔			✔
Hyperlinks (URL, email, telephone, SMS, Apple App Store/Google Play)	✔	✔	✔	✔	✔	✔	✔
Hyperlinks to internal content	✔	✔	✔	✔		◐	✔
Publication-page thumbnails	◐		◐	✔	✔	✔	◐
JavaScript	◐	◐	◐	✔		◐	✔
Forms				✔		◐	✔
Button actions				✔		✔	✔
Multiple actions per button				✔		✔	✔
Zoomable	✔	✔	✔	✔	✔	✔	✔
Image panning		✔	✔	◐		✔	✔
Image slideshows		✔	✔	✔		✔	✔
Video slideshows		✔	✔	✔		✔	✔
Content replacement				✔		✔	✔
In-page embedded web content				◐		✔	✔
Panoramas						✔	✔
3D rotatable images						✔	✔
In-page scrollable content						✔	✔
Vector graphics	✔	✔	✔	✔			✔

In-page animated objects	◐	✔	✔			✔	✔
Drag-and-drop objects							✔
Dynamic server-fed content	✔			✔		✔	✔
Attachments				✔			

Legend:

✔ Yes, the format supports this type of content or interactivity.

◐ The format supports some but not all features of the content or interactivity, and/or some systems or software that produce the format support the option while others do not.

Reflowable EPUB

EPUB is the international standard for ebooks as read by ereaders and ereader software. EPUB is a shortened form of “electronic publication,” though that’s a misnomer because everything you read on a screen is technically an electronic publication. EPUB is the standard for ebooks, which, with a couple of exceptions I’ll discuss in Chapter 3, “Surveying the Digital Publication Types,” is all it’s currently suited for, though that may change in the future.

> **Note**
>
> You’ll see EPUB capitalized in a variety of ways, including ePUB and ePub, but according to the standards body that maintains it, it is properly written as EPUB.

There are two separate classes of EPUBS—reflowable and fixed-layout. The former is dynamic, allowing the text of the ebook to fit any screen size and font size combination, breaking lines of text and reflowing the text as necessary to fit the exact screen without the need for horizontal scrolling. *Fixed-layout ebooks*, by contrast, do not dynamically adapt to fit the device screen, nor can their text size be altered by the reader. I’ll discuss fixed-layout ebooks in depth in the next section.

The current version of EPUB is 3, which was officially ratified in October 2011 by the International Digital Publishing Forum, the standards body that defines the EPUB file specification. It hasn’t changed very much since. Because of the length of time between file spec ratification and updates to ereader software, firmware, and, in some cases, hardware, it’s entirely possible that some of your audience will be able to read only in EPUB 2 for some time yet to come. That’s OK, because EPUBs degrade gracefully for the most part, meaning that you should design for EPUB 3, and any features not understood by the ereader should be ignored while everything else does display.

EPUB is effectively a web page, albeit with much less ability than the average site you might visit in a browser. The format is structured through *XML* and *XHTML*, the latter being a subset of the former's language, while content is styled within the ebook via *CSS* just like any web page. When viewing an EPUB, you are effectively reading a web page whose entire text, images, and other assets are localized and wrapped up into a single EPUB-format archive file, much like a *ZIP* or *RAR* archive. Inside the EPUB is at least the XHTML comprising the text of the book, a CSS stylesheet file controlling the presentation of the book text, and a manifest file that informs the ereader hardware or software about the existence of the other files. We'll get into those components and others in depth in Chapter 6, "Fine-Tuning EPUBs."

Because EPUBs are XHTML and CSS, they are designed and styled like web pages but without many of the bells and whistles possible with pages on the web. They can be created from InDesign (of course), Apple Pages, QuarkXPress, and other software without the need to ever touch their XHTML and CSS markup or code (see Chapter 4, "Creating Basic Ebooks," for guidance on doing it with InDesign). To go beyond a basic, bland ebook and add color, font variance, imagery, audio, and more, you'll need to get into the XHTML and CSS markup of the ebook—which isn't as scary or as difficult as many think. In Chapters 5 through 7, we'll do just that, with hands-on, easy-to-follow step-by-steps and measurable results. Then, in Chapter 8, "Creating Fixed-Layout Ebooks," we'll go step by step through creating an exciting subclass of ebooks that bridges the gap between standard, feature-limited EPUB and more advanced, more interactive, more controllable user-experience epublications.

Despite the ability to control the layout to a degree with XHTML and CSS, ebook presentation is primarily dependent on the reading device and the person wielding it. EPUB text (except fixed-layout, which, again, we'll talk about in Chapter 8) always adapts to fit the screen on which it's viewed, which is perhaps the greatest strength of the format class, and that text can be dynamically resized by the person reading it, growing or shrinking the font size for that individual's optimal reading experience. The dynamic reflow naturally causes changes in the way elements are displayed; images may get moved around; drop caps may show differently on different devices, at different sizes; columns may or may not show as designed; and so on. The bottom line is that, by design, ebooks are fluid and adaptive to their reading environments. Consequently, the control designers have over their layout and appearance is minimal when compared to print publications and even most other digital publication format classes.

Here is a quick look at the advancements in EPUB 3 compared to its previous version, EPUB 2.0.1.

- Support for the CSS3 version specification, including better line break

and hyphenation control as well as right-to-left text display for languages such as Hebrew, Arabic, and Japanese

- Support for multiple CSS stylesheets, which can be used to alter the display of an ebook for different display devices, sizes, and horizontal and vertical orientations as well as give users a choice of background and foreground colors and fonts
- Support for HTML5
- Support for *JavaScript*
- Expanded metadata
- Embedding of fonts in *OTF* and *WOFF* formats
- Inline vector graphics in *SVG* format
- Direct embedding of *MathML* rather than images of mathematic equations
- Inline *HTML5* rich-media audio and video elements
- Text-to-speech and synchronized text and audio functionality

What Reflowable EPUB Offers

Here are the big characteristics of the reflowable EPUB format:

- Typical use: ebooks, ejournals, enewspapers (see definitions in Chapter 3)
- Ideal for mostly text content
- Text automatically reflows to fit any screen
- User-adjustable font sizes for maximum reading comfort
- CSS-based styling
- Supports image inclusion
- Supports video inclusion (in EPUB3 and depending on reading device)
- Supports audio captioning and read-aloud ability (in EPUB3 and depending on reading device)
- Supports server-fed dynamic content (with live connection)
- Supports limited JavaScript functions (in EPUB3 and depending on reading device)
- Very small file sizes
- No publication or technology licensing fees

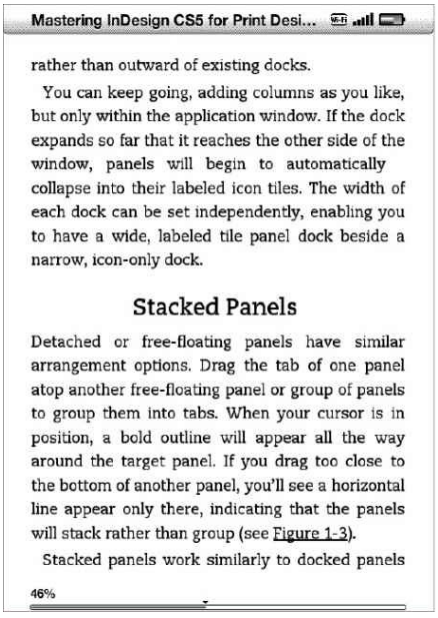
What Reflowable EPUB Does Not Offer

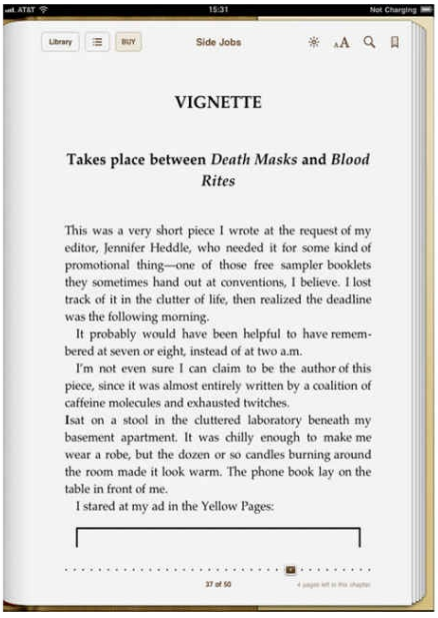
Conversely, if you want any of the following characteristics in your digital publication, then EPUB is decidedly not the right format to choose.

- Precise layout control
- Touch interactivity (beyond tapping to change pages and activate hyperlinks and embedded audio or video)
- Nonlinear reading experience
- Mostly photographic or illustrative book
- Embedded games
- A large amount of video content

EPUB Examples

The best way to understand the characteristics of the EPUB type is to look at examples. If you're familiar with ebooks at all, you've probably already looked at many. If not, refer to Figure 2.1, which shows a few examples across fiction, nonfiction, and children's genres. Naturally you'll need the most modern ereader software you can get your hands on, and you should ideally try the different examples in as many classes of devices as possible.





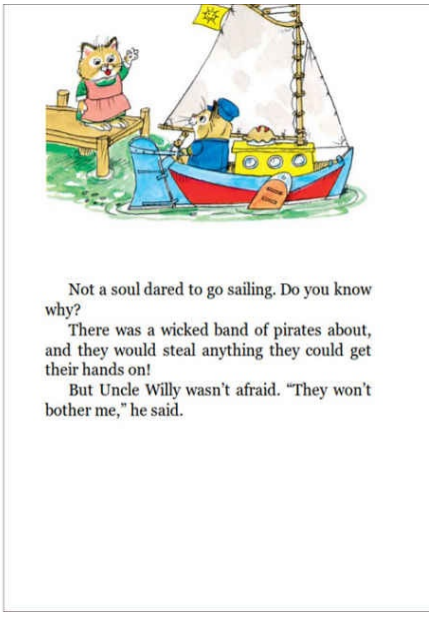


Figure 2.1: Examples of Reflowable EPUBs

Left to right: *Mastering InDesign CS5 for Print Design & Production* by Pariah S. Burke, *Side Jobs: A Novel of the Dresden Files* by Jim Butcher, and *Richard Scarry's Bedtime Stories* by Richard Scarry.

EPUB Production Roles

Because EPUB ebooks may be produced in a wide variety of software and are less difficult to create than the average simple website, like websites, they can be created by individuals or teams. Depending on the content of the ebook, some or all of the following roles will need to be filled by team members or the individual self-publisher:

> **Note**
>
> If you're a self-publisher (or want to be), don't let the list of EPUB production roles intimidate you. You don't need to be, or hire someone to fill, all those positions. They are merely the types of roles that may be required, depending on the number and type of books you might want to publish. Self-publishing a simple, text-only novel, for example, requires only writing, editing, and EPUB creation tasks, all of which can (and frequently are) handled by a single person. For a more concrete example, take me, your humble author. I have personally fulfilled every one of those roles in the production of digital publications.

- Author/copywriter
- Developmental editor
- Copyeditor
- Technical editor
- Indexer
- Compositor
- Production artist
- Illustrator
- Graphic designer
- Photographer
- Photo retoucher
- Videographer
- Video editor
- HTML/XHTML designer
- CSS styler

Fixed-Layout

Often referred to as "children's ebooks," "picture ebooks," "photo books," and similar appellations, fixed-layout ebooks are visually-rich layouts that offer a very different set of features from reflowable EPUBs. Though a relatively new format, the popularity of fixed-

layout ebooks has exploded among both readers and publishers.

> **Tip**
>
> *FXL* is growing among the publishing community as an abbreviation or shorthand for fixed-layout ebooks. Keep an eye out for it as well as fixed-layout's many other monikers.

Fixed-layout ebooks are those that don't automatically reflow to fit the device on which they're viewed. Instead they behave very much like PDFs or even digital magazines, displaying the design, typography, and page geometry exactly as designed on all devices. Screen fitting is limited to zooming and whether to show a single page or a two-page *spread*.

This specialty type of ebook tends to be very reliant on imagery, either or both as inline graphics or page background images, and sometimes even as spread-spanning images. They support advanced typographic control and pixel-precise layout, and they can contain read-a-long, on-demand, or ambient audio. Limited interactivity may also be achieved through JavaScript integration. Objects can be placed anywhere on the page, aligned relative to one another, with absolute precision, and type control goes far beyond standard, flowable EPUB in the forms of support for any font (with embedding), accurate line wrapping, hyphenation, leading control, tracking (letter spacing), and even multiple columns. Fixed-layout EPUBs may have real sidebars, note or tip boxes, and live text image captions. And, like flowable EPUBs, all the text—even in such special features—is searchable, live text.

All of these features make fixed-layout ebooks ideal for such projects as children's books, cookbooks, travel journals, photography and design books, game guides, and any other project where page presentation is paramount. (Alliteration! Thank you! [Paraphrasing Jon Lovitz's character "the Thespian" from *Saturday Night Live*.].)

Few handheld ereader devices support fixed-layout ebooks, but that's a relatively minor downside for three reasons: First, a fixed-layout ebook is still an EPUB; if the device doesn't support the "fixed-layout" portion of the title, it will still display the content as a regular EPUB. Granted, the layout may look horrible with elements displayed individually and sequentially, but the important thing is that it will still be *readable*. Second, most people don't *expect* to be able to read image-heavy fixed-layout ebooks on greyscale handheld ereaders; they typically elect to read such books on most robust devices like tablets and computers. Third, those devices that currently support the format are from the top ebook stores already dominating most markets. As of this writing that list includes iPad (all generations with iBooks 1.2 or later), iPhone, and iPod Touch, as well as the entire lines of tablets from Amazon (Fire OS, including the first generation Kindle Fire tablet), Barnes & Noble, and Kobo, and any Android 2.2 or later device with Google Play

Books. Additionally, fixed-layout is supported by the Kindle, NOOK, Kobo, and Google Play Books apps for Android, iOS, Mac OS X, and Windows.

Fixed-layout is the format for open standards, widely-distributable content when page design is important or when the content includes animation, audio, video, read-a-long capability, or lots of imagery. It is the format of choice for numerous types of books including, but not limited to, photo books, graphic novels, children's books, and educational books.

It is increasingly replacing PDF or proprietary formats for etextbooks. Moreover, even many digital replica and interactive magazine format publications are being rebuilt as fixed-layout. As subset of the open standard EPUB 3, fixed-layout is freely extensible, consumable on a vastly largely number of devices and software, and is free from licensing costs, unlike interactive magazine format and most kinds of digital replicas.

What Fixed-Layout Offers

Here are the big characteristics of the fixed-layout ebook format:

- Typical use: highly visual or moderately interactive publications such as photo or picture books, graphic novels, children's books, etextbooks, cookbooks, travel guides, and more
- Ideal for media-heavy content
- Uses EPUB 3 specifications
- Degrades poorly when viewed devices that do not support EPUB 3 and fixed-layout
- Page design is fixed and unalterable by the reader
- Page size may be portrait (taller than wide) or landscape (wider than tall)
- Text will not reflow
- Text size does not change
- Will zoom proportionately to fit different screen sizes, which typically renders text too small to read on phones
- CSS-based styling
- Supports multiple CSS stylesheets to automatically reformat the document to fit specific devices or device classes
- Supports text in non-straight lines (e.g. *type on a path* and text contained in non-rectangular shapes)

- Supports image inclusion
- Supports background images
- Supports animation
- Supports video inclusion
- Supports audio captioning and read-aloud ability
- Supports limited JavaScript functions
- Can be set to right-to-left reading order for languages such as Hebrew, Arabic, and Japanese
- No publication or technology licensing fees

What Fixed-Layout Does Not Offer

As I noted above, fixed-layout is rapidly growing in popularity on its own and as a replacement for many publications formerly using digital replica and interactive magazine formats. The love affair with fixed-layout has as much to do with its slim list of limitations below as it does the long list of strengths above.

- Nonlinear reading experience
- Embedded games
- A large amount of video content

Fixed-Layout Examples

If you've never looked at fixed-layout ebooks before, the best way to understand how they work and what they're capable of is to examine them live on a compatible device. Take a look at the images and captions of Figure 2.2. They show pages from several fixed-layout EPUBs as viewed on different tablets. If you have the device identified, grab a copy of, or sample from, the book in that device's ebook store to get a deeper understanding of how fixed-layout ebooks behave on that device than I could possibly give you in static screenshots.

Figure 2.2: Examples of Fixed-Layout eBooks

Upper row, left to right: *Yellow Submarine* by the Beatles, *Phineas and Ferb: Oh, Christmas Tree!* by Scott Peterson, an *The Tale of Peter Rabbit* by Beatrix Potter. Lower row, left to right: *Missed Connections* by Sophie Blackall, *Barcelona Beyond Gaudi* by Elizabeth Castro, and *Digger the Dinosaur, I Can Read!* by Rebecca Kai Dotlich

Fixed-Layout Production Roles

Because EPUB ebooks may be produced in a wide variety of software and are less difficult to create than the average simple website, like websites, they can be created by individuals or teams. Depending on the content of the ebook, some or all of the following roles will need to be filled by team members or the individual self-publisher:

- Author/copywriter
- Developmental editor
- Copyeditor
- Technical editor
- Indexer
- Compositor
- Production artist
- Illustrator
- Cartoonist
- Graphic designer
- Photographer

- Photo retoucher
- Videographer
- Video editor
- HTML/XHTML designer
- CSS styler

Kindle Formats

Amazon.com, which parlayed online printed book sales into an emporium (some might say imperium) offering everything from computer components to clothing, is inarguably one of the largest providers of both digital publications and products on which to consume those digital publications.

One of the reasons why Amazon became so successful in the digital-publication distribution space is its creation of proprietary formats that didn't wait for international standards bodies in order to innovate. For instance, while the rest of the world was still trying to define *digital rights management*, Amazon had already built and implemented its own *DRM* system within ebooks sold through its Kindle devices and software.

Using Amazon devices and software to read econtent is a seamless, virtually bug-free experience, with digital-content features leading the industry or trailing behind other innovators by only a short time. For publishers, supporting proprietary file formats typically means redundant workflows or at least content-conversion headaches—which is true of fixed-layout ebooks for Amazon devices but not of standard ebooks. Amazon carefully crafted its proprietary formats and its publication system to reduce the amount of work for publishers. While Amazon's Kindle devices don't use the industry-standard EPUB ebook format, there are a number of tools, including Amazon's own publication process, to convert valid EPUB files (reflowable and fixed-layout) into Kindle formats without significant work. One such tool is a command-line utility called KindleGen that will convert EPUBs, even fixed-layout EPUBs, into Kindle-ready MOBI, AZW, PRC and KF8 formats.

Each of the Kindle formats detailed in the following sections are roughly equivalent to more standardized formats. For example, EPUB has never been a natively supported file format, but MOBI, PRC, and AZW can everything reflowable EPUB can. KF8, the most modern of Kindle formats, can also be used for reflowable EPUB, though, unlike the other formats, it also supports fixed-layout ebooks. Thus, for fixed-layout distributed through Kindle, you'll need to create KF8 files. As long as you read the earlier sections on reflowable and fixed-layout EPUBs, you'll understand the Kindle formats as well. For this reason, I'll keep the discussion of the Amazon formats brief, noting only the differences

Amazon's formats bring to the equation.

AZW, MOBI, and PRC Formats

The first generation of Kindle devices uses Amazon's DRM-enabled AZW file format, which is based on the Mobipocket type, which can be MOBI or PRC file formats; the Mobipocket type of ebook is most commonly referenced as simply MOBI in recognition of the more commonly seen of the two file extensions. Amazon owns both the Mobipocket books and AZW file formats. MOBI is an unprotected format, free from digital rights management, which is why free online libraries often distribute MOBI files alongside EPUB editions of their ebooks. AZW, conversely, is DRM-restricted, enabling Amazon to control access to paid content, including preventing Kindle ebooks from being opened in other applications or transferred to other Kindle users (outside Amazon's lending system). Consumers never see the AZW file extension and typically have no idea it exists; for them, the experience is that they purchase an ebook through the Kindle store, and that ebook is delivered, ready to read. For publishers, AZW enables content protection without impeding user experience (unlike DRM efforts in other media, such as music and films), creating trust with publishers, and is therefore creditable with building much of the foundation of the ebook industry.

KF8 Format

The latest ebook format for Amazon is *KF8* (Kindle Format 8), built for Kindle tablets and the fourth generation of Kindle handheld ereaders and software, which include current generation Kindle ereader devices and Fire OS tablets, television products, and other devices. All of these devices still also support AZW and MOBI (including PRC format Mobipocket ebooks) natively and transparently. Amazon had stated an intent to transition away from AZW and MOBI into KF8 for current generation and future devices, but the entrenchment of the older formats coupled with the fact that they gain nothing being converted to the newer format, has slowed and perhaps stalled the smiling giant's intent. At some point in the future Amazon may forcibly retire its older formats, though that may not be until KF9 or KF10 or some completely different format is devised. For now, you are perfectly free to use AZW and MOBI if your publication doesn't need the advanced features of KF8.

The KF8 format is roughly equivalent to EPUB 3, with support for CSS3, HTML5, fixed layouts, embedded fonts, SVG graphics, and more advanced audio and video inclusion. Thus, KF8 is the format to use when creating fixed-layout ebooks.

As you get into advanced ebooks or seek to take advantage of the unique capabilities inherent in Amazon's proprietary formats, you will need to work directly with the code of

the MOBI, AZW, and KF8 formats. We'll talk about doing just that in context as we build publications in Chapters 5 through 8.

Kindle Publishing and Conversion Utilities

Because of Amazon's leadership position in the ebook market and the fan base its Kindle devices have built, Amazon's devices are consistently the most widely used for ebook consumption. Most ebook stores closely guard their sales figures, but according to numerous sources, including eBook Architects (February 2014), Kindle is estimated to own 50—70% of the U.S. ebook market with iBooks, NOOK, Kobo, and Google Play Books all dividing the remaining percentage. Moreover, self-publishers report that 85% of their ebook sales come from Amazon with Barnes & Noble, Apple, Kobo, Google, Smashwords, and others all combining to only 15% of self-publishers' ebook sales (2013 eBook Self Publisher Survey by Sellbox.com, October 2013) It's also interesting to note that Kindle's market share estimates haven't changed significantly since I wrote the first edition of ePublishing with InDesign in 2011–2012, which was before Amazon became embroiled in disputes with several publishing houses (most notably Hachette) and was accused of anti-competitive price-fixing.

Consumers love buying their ebooks from Amazon, and that means only a fool wouldn't publish ebooks through Amazon, even if they do take a little more effort than all the other ebook stores. Fortunately, converting standard reflowable and fixed-layout EPUBs to Kindle equivalent formats is usually relatively painless. Amazon makes conversion tools available, and, in fact, some of the most popular third-party utilities also support relatively easy conversion of standardized formats (EPUB, PDF, HTML, and so on) into these proprietary formats. Calibre, a third-party EPUB editor and converter we'll make use of in later chapters, can convert EPUB and many other formats into AZW, MOBI and KF8, as can Amazon's own KindleGen tool. If you attempt to upload a reflowable EPUB to Amazon for publication, Amazon's own servers will do the conversion automatically to AZW, though the result sometimes contains errors. I strongly advise against letting Amazon's servers automatically convert fixed-layout ebooks; the results are typically disastrous.

You can access KindleGen, Calibre, and many other tools at http://abbrv.it/DigiToolsIDTools.

PDF

PDF has long been the format of choice for a wide array of digital publications, from books and manuals to magazines and catalogs and everything in between. It supports all modern media and a good deal of interactivity, is relatively easy to create, and is readable by just about every screened device—even most handheld ereaders.

Ironically, people dismiss PDF as a viable digital-publication format because of how common and pervasive PDF is in the modern world. We so frequently deal with PDF contracts, user manuals, reports, design proofs, email archives, web page captures, and all sorts of other simple, "flat" PDFs that many forget or never learn that PDFs can be so much more. They can contain audio and video—and with more precise control than that offered in most other formats, including digital magazines; they support in-the-page

slideshows, rollover effects, and content replacement; text can be built to reflow to fit the screen on which the PDF is displayed; users can bookmark, highlight, and annotate the content; hyperlinks in PDF can execute multiple actions simultaneously (such as play a video and launch a URL or zoom into a specific area of an image and activate an audio track), something no other format except HTML5 can do, and if the built-in interactivity isn't sufficient, PDFs are scriptable via JavaScript for advanced interaction and function. PDFs also have built-in security features that can be augmented with DRM via the Adobe LiveCycle Server product.

Most importantly, PDF is a near-universal format. Who doesn't have a PDF reader on her computer? Mac OS X even comes with one built in. Everyone else—and Mac users who want the full PDF experience—can easily install the free Adobe Reader, which is available for Windows, Mac, UNIX, iOS, Android, Fire OS, and so on, for a total of 23 different operating systems and platforms. Just about any Internet-connected screen in the world can display a PDF. Note that many mobile devices don't fully interactivity and media embedded within PDFs, but the text, imagery, and other basic functions of a PDF receive universal support.

From the design and production point of view, PDF is already a familiar format with which we work every day; making it interactive is a little more effort, but far less work than creating tablet-only interactive digital magazines. Designing the interactivity into a PDF happens in InDesign, just like everything else; you add a video here, create a slideshow on this page, and make multistate objects over there (as discussed in detail in Chapter 9, "Creating PDF Publications for Digital Delivery").

I am not trying to persuade you to use PDF over any of the other formats discussed in this section. What I *am* pointing out is that PDF offers so much more than most realize, that it is still viable as a digital-publication format, and that the newer formats and devices don't automatically make PDF obsolete.

Publishing a PDF also doesn't require any additional licensing fees. Although PDFs usually can't be distributed through ebook stores or app stores, you can certainly publish both a fixed-layout EPUB version *and* a PDF for everywhere else. In fact, with the first edition of this book and the later *ePublishing with InDesign: Creating Fixed-Layout eBooks* I self-published, I was often asked for PDF versions by readers. Hence the availability of this very book in EPUB *and* PDF.

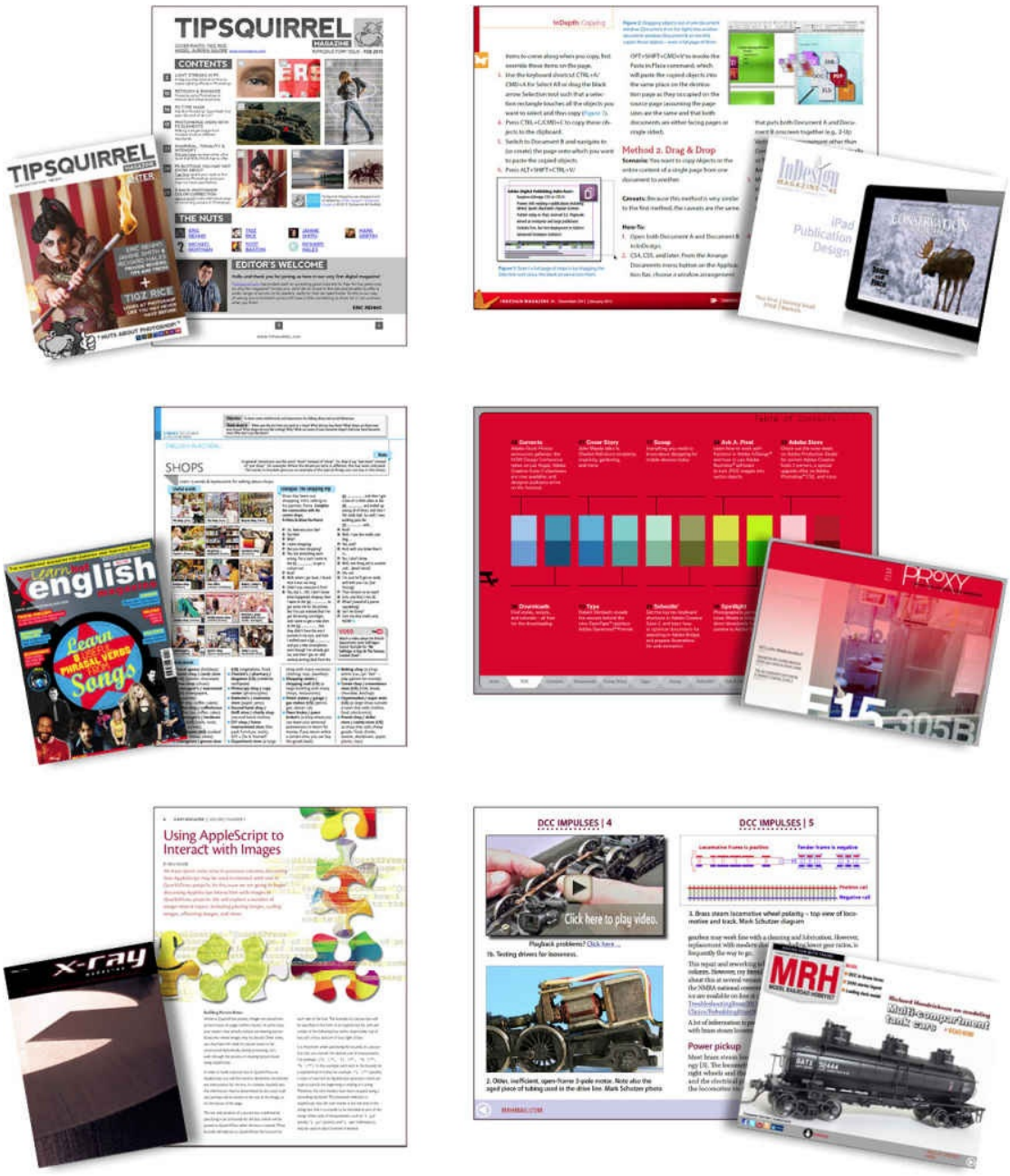


Figure 2.3: Examples of PDF publications

TipSquirrel Magazine, February 2015 (top left), *InDesign Magazine*, January 2012 (top right; article by yours truly, Pariah Burke), *Learn Hot English*, November 2014 (middle left), *Adobe Proxy*, May 2006 (middle right), *X-Ray Magazine*, Vol. 5, No. 1 (bottom left), and *Model Railroad Hobbyist Magazine*, February 2015 (bottom right).

PDF is also the basis for the digital replica format discussed next. Typically digital replicas are created directly from a PDF, with many simply being an app wrapper surrounding the original PDF.

Tip

Subsequent mentions of the Apple App Store will use the term *App Store* while the Google Play app store will be called simply *Google Play*.

What PDFs Offer

In Chapter 9, we'll go step by step through creating PDF-based books, magazines, catalogs and other digital publications while discussing the strengths and weaknesses of the format in depth. For now, here are the big characteristics of PDF-based publications. Note that some of them are not available for all platforms.

- Near-universal device support (some features are not available on all devices)
- Precise layout control
- Optional reflow of text to fit any screen
- Highly interactive
- Supports images, audio, video
- Supports vector graphics
- Supports rollovers and content replacement
- Supports integrated forms
- Supports JavaScript
- Supports zooming
- Optional in-publication subscription and ordering system (via integration with web-based ecommerce system)
- Enables user annotation, bookmarking, and highlighting
- Built-in table of contents
- Built-in navigational system
- Linear and nonlinear reading capabilities
- Ability to include attachments
- Quick conversion from print edition layouts
- No publication fees

Flash-Powered Digital Publications

Flash is dead. Long live Flash. And, no, I don't mean Sam Jones's title character in the 1980 film Flash Gordon and immortalized in 2012's Ted (Flash! Ah, ahhh, savior of the universe). I mean Adobe Flash, formerly Macromedia Flash, formerly FutureSplash.

Once upon a time Flash was the future (again, not Flash Gordon, though he's supposed to be from the future, too). Once, Flash was the de rigueur technology for website design. An untold number of online games were built in Flash and continue to run in Flash…but not on iOS. That's the crux of it. Apple—specifically late cofounder and CEO Steve Jobs—said no to Flash when the iPad was released, and he and Apple never relented. The ability to play Flash-powered animations, video games, videos, websites, and even web banner ads was never an option on iPads, iPhones, or iPod Touches. Eventually, the popularity of those devices led Adobe to discontinue the mobile viewer for Flash content—for any platform. Thus, iOS killed Flash (something even Ming the Merciless couldn't do) for every mobile device but only as a delivery format; Flash is still alive and very well as a development platform, and some of the most popular games and apps running on mobile devices—even iOS-powered devices—were built using Flash.

Flash also used to be a format option for digital publication delivery. It was extraordinarily well suited to that purpose, in fact, given that Flash SWF files could contain multiple pages (as frames on the timeline), included typographic support that was better than HTML offered, and, of course, supported multimedia and virtually any type of interactivity one could want. Several companies banked on Flash-powered magazines, in fact, offering issue-distribution services and software to create them from scratch or through conversion from PDF.

A few Flash-based delivery systems still exist, and for now, Flash is still almost universally supported as a content-delivery format (for web stuff and epublications) on computers, which is why the Flash-based service providers continue to make sales, but without mobile-device support, it just doesn't make sense for a serious publisher to choose Flash for any epublication delivery.

What PDFs Do Not Offer

The following are features you *won't* get in even the most advanced PDF-based publications:

- Multiple layouts for horizontal and vertical device orientations
- Scrolling areas
- Embedded web content
- 3D rotatable objects
- Delivery via major ebook and app stores

PDF Examples

There are several publications going strong in PDF, though far better on computers than tablets or other mobile devices. Figure 2.2 shows such publications.

PDF Production Roles

Creating a basic digital-distribution PDF requires no additional skills or personnel beyond what is required to create a print publication. After all, from InDesign, PDF creation is a simple export operation. However, taking full advantage of the format with multimedia and interactivity will require some or all of the following additional skills for an individual or team:

- Author/copywriter
- Developmental editor
- Copyeditor
- Technical editor
- Indexer
- Layout designer
- Illustrator
- Photographer
- Photo retoucher
- Videographer
- Video editor
- Voiceover talent
- Audio mixer
- Form designer
- JavaScript programmer
- Web analytics expert

Digital Replica

A common format that rose to overuse almost instantly at the dawn of the Age of Tablets but that is, thankfully, calming down to only appropriate uses is *digital replica*. You might also see referred to as *interactive replica*, *print replica*, or other similar names. A digital replica epublication is what I call “an app via PDF”—it is the print version of the publication displayed on a digital device, typically through export from the layout program to PDF, which is then wrapped in a viewer app that is released to the public. Another method of creating a digital replica includes converting all the pages in the publication into JPEG or PNG images and then displaying them sequentially within the viewer app, with or without reflowable text backing up the page image. This latter method

is common for digital replicas of books where the appearance of the book page is as important to the book's value as the text in the book—for example, digital editions of historically significant texts or non-interactive graphic novels.

Digital replica publications are easy and quick to move to digital formats because they require little extra work as long as the design is already done for the print edition. Depending on the software and service used for the PDF or image conversion, additional features may be added—features such as the inclusion of hyperlinks within the content, the addition of videos and audio as overlays or separate pages, and EPUB-like views of article copy (without images). Digital replicas are not very engaging to readers because they simply mimic the passive reading experience of printed magazines, but if a publication doesn't *need* the extra interactivity and embedded media, a digital replica might be the ideal format. Moreover, priced appropriately and marketed well, a digital replica can be a successful companion or even replacement for a print publication without production workflow retooling. When compared to interactive digital-publication systems, digital-replica publications are also usually quite a bit less expensive to produce and distribute.

What Digital Replica Offers

At a glance, here are the big characteristics comprising the digital-replica publication type:

- Viewable almost anywhere (as PDF or through web-based viewers) or only on tablets (as app-via-PDF)
- Obtained as single-issue/one-off standalone apps; as single-title, multi-issue, branded newsstand apps; or as part of a newsstand of multiple titles
- Available in-publication or in-app subscription ability
- Option for issues delivered automatically to subscribers
- Precise layout control
- Supports limited audio, video
- Supports hyperlinks
- Optional built-in table of contents
- Built-in navigational system
- Linear and nonlinear reading capabilities
- User-selectable, optional EPUB-like text-only display of articles

What Digital Replica Does Not Offer

Conversely, if you want any of the following characteristics in your digital publication, then digital replica is decidedly not the right publication class to choose:

- User-adjustable font sizes (except in optional text-only display of articles)
- Text automatically reflows to fit any screen (except with optional text-only article display)
- Touch interactivity (beyond simple tap/swipe for page turning and activating hyperlinks, audio, and video)
- Embedded games, forms, or web content
- A large amount of video content

Digital Replica Examples

The list of periodicals publishing digital replicas to a wide array of devices is staggering, but below is a quick list off the top of my head. Note that several of these also publish interactive magazine format versions as well. You should be able to find these and many others in the App Store or Google Play. Figure 2.4 shows a few other examples as well.

- *Advanced Photoshop*
- *Cosmopolitan*
- *Esquire*
- *Harper's Bazaar*
- *Maxim*
- *Motor Trend*
- *National Geographic*
- *Oprah*
- *Rolling Stone*

Figure 2.4: Digital replica publication examples

Shape, March 2015 (top left), Men's Fitness, March 2015 (top right), Inc, February 2015 (middle left), Total Film, February 2015 (middle right), Coffee Magazine, March 2015 (bottom left), and Apple Magazine, February 20, 2015 (bottom right).

Digital Replica Production Roles

Digital replicas are, as the name implies, merely replicas of print publications. Thus, there is very little work involved in their creation and publication after the print edition has been finalized. Someone merely exports the print edition to PDF, uploads it to a conversion and distribution service, adds a minimum of interactivity, and clicks Publish. Assuming you want to add as much interactivity as possible to your digital replicas, you may need to hire or train for the following additional roles beyond developing the print publication:

- Author/copywriter
- Developmental editor
- Copyeditor
- Technical editor
- Indexer
- Layout designer
- Illustrator
- Photographer
- Photo retoucher
- Videographer
- Video editor
- Voiceover talent
- Audio mixer
- Form designer
- JavaScript programmer
- Web analytics expert

Interactive Magazine

When the iPad was first released, major magazines like *Wired* and *Sports Illustrated* were the first out of the gate, with interactivity and media-rich publications utilizing the full array of touch interactivity inherent in the iPad's design. Because of this, as well as the rapid succession of other magazines to adopt the technology even in its *alpha* and *beta* stages, the format, which actually lacks a formal name even half a decade past its debut, has come to be commonly called the *interactive magazine* format, and for the duration of this book I will use that nomenclature. (However, it is also often described as the *fully interactive*, *media-rich*, or *app-based* publication format, though none of those fully or accurately describe it either.) Despite the name, the interactive magazine format is not limited to magazines. The format class is ideal for ecatalogs, eyearbooks, richly interactive ebooks, and many other types of publications. Unfortunately, its moniker tends to make creators of other types of publications shy away from interactive magazine. I hope that won't be you, now that I've defined the full use of the term.

The name interactive magazine is not official, though it is widely used and is immediately understood by anyone in the publishing industry. Companies like Adobe, Aquafadas, Mag+, and others all tend to identify their own versions of interactive

magazine publications with names meant to strengthen the brands of their propriety creation systems—"Adobe DPS apps," for example. Moreover, there is no common file extension to refer to as there would be with PDF or EPUB publications. Some digital-magazine creation systems create .Folio files, others .Issue files, but none of those formats are actually used on a tablet; rather, those .Folio, .Issue, or other intermediary formats are converted into apps for distribution through the Apple Newsstand or App Store, Google Play Newsstand or Apps Store, and similar parts of the Amazon App Store and Windows Store. Calling them "app-based publications" would be misleading because several publications are available as apps that don't use this particular class of format but instead have been custom-coded from scratch to do something unique.

Unlike the other format classes discussed in this chapter, all of which can be used across a range of devices, interactive magazine is a class built specifically and solely for mobile operating systems and the tablet and smartphone devices that run on them. It has no support whatsoever on handheld ereaders or even on computers (see the sidebar "Interactive Magazine Conversions for Computer Viewing"). It's built specifically for tablets' touch interfaces, fully interactive, media-rich, app-based digital magazines fully exploit the multimedia and user-interactivity features of tablets by offering not only pixel-precise layouts equivalent to print magazines but also audio, video, slideshows, 3D rotating objects, zooming, panning, replaceable content, scrolling regions, live web content, and on-the-page video games. All of these features (and more) function with the reader's direct physical interaction—interaction more involved than simply clicking a mouse button or swiping to turn the page. They draw readers into the content through their interactivity, making the process of reading such a publication more of a collaborative, personal, and active experience than the passive reading experience inherent in print publications, reflowable EPUBs, and digital replicas.

Interactive Magazine Conversions for Computer Viewing

As I stated, the interactive magazine format class cannot be viewed on computers—in their native format. Depending on the system used to create the interactive magazine publication, there may be available a means of publishing it for display on computers. Adobe DPS, for instance, provides the option of publishing to the Adobe Content Viewer for the Web. Publications using this distribution channel are viewable within web browsers on computers, tablets, smartphones, and other devices, but do not include as rich an interactive experience as their tablet versions. Similarly Aquafadas DPS, Adobe DPS's largest competitor, offers Web Reader distribution. Unfortunately this distribution method converts Aquafadas DPS publications into Flash SWF publications, something I've already strongly cautioned you against using (see the sidebar "Flash-Powered Digital Publications" earlier in this chapter). Thus there are means of viewing interactive magazine content on computers, but they don't really count because these web-viewable versions are not the same format and lack the full breath of features of the native tablet versions.

What Interactive Magazine Offers

Tablet-based interactive magazine-formatted publications can contain a great deal of interactivity, including hyperlinks that open web pages, hyperlinks that send email and SMS text messages, hyperlinks that dial the phone, audio and video, image and video slideshows, panoramic images, 3D rotatable objects, scrollable areas, content replacement to create areas of pages that change based on user interaction, and embedded web content such as live Twitter streams, RSS feeds, video games, web pages, shopping carts, and *anything* else you can do on the web. All of this is wrapped into an app with swipe-to-page and pinch-to-zoom capabilities and visual tables of contents, with or without page thumbnails.

We'll go step by step through creating all of those types of content and interactivity in Chapters 12–14. At a glance, here are the big characteristics of the interactive magazine publication type:

- Viewable only on tablets
- Typically delivered via newsstand or as app
- Available in-publication or in-app subscription ability
- Issues promoted automatically to subscribers
- Obtained as single-issue/one-off standalone app; as single-title, multi-issue, branded newsstand app; or as part of a newsstand of multiple titles
- Precise layout control
- Optional separate or adaptive horizontal and vertical article layouts
- Optional multiple layouts for different tablets and screen sizes published and managed as one unit
- Fully interactive
- Supports images, audio, video, animation
- Supports content replacement
- Supports server-fed dynamic content (with live device connection)
- Built-in table of contents
- Built-in navigational system
- Linear and nonlinear reading capabilities

What Interactive Magazine Does Not Offer

Conversely, if you want any of the following characteristics in your digital publication, then the interactive magazine format is decidedly not the right one to choose:

- User-adjustable font sizes
- Text automatically reflows to fit any screen
- Very small file sizes
- Viewing on computers (except with conversions)
- Viewable on handheld ereaders
- Quick conversion from print edition layouts
- No publication fees

Interactive Magazine Examples

There are tens of thousands of magazines and non-magazines using this format class as of this writing, with more launching monthly. I couldn’t possibly include them all, but Figure 2.5 shows a few you should look at to see what they’re doing right and what they’re doing wrong.

Figure 2.5: Examples of the interactive magazine format

Empire, March 2015 (top left, note the playable podcast recordings in the center panel), Adobe Inspire Magazine, February 2015 (top right), Vogue, March 2015 (middle left), Condé Nast Traveler, March 2015 (middle right), The Essential Guide to TRON: Legacy (bottom left, a single-edition book using the interactive magazine format), and National Geographic, March 2015 (bottom right).

Interactive Magazine Production Roles

Interactive magazines are creatively and logistically the most demanding of all types of digital publications to produce. They must be designed almost entirely separately from their print editions, with page sizes and orientations specifically geared toward one or more tablets' resolutions and capabilities, often with multiple versions of every article, and

interactivity and media features built by hand for each issue, each article. In Chapter 12, “Covering the Basics of Interactive Magazines” we’ll use InDesign’s built-in multiple layout and layout conversion techniques to dramatically reduce the amount of effort required to adapt page designs to different sizes and orientations, but even with those tools, creating high quality, engaging interactive magazines takes roughly three times the time and effort as building an equivalent print edition.

Depending on the content of your particular interactive magazine, some or all of the following roles will need to be filled by team members or the individual self-publisher. The payoff, of course, is a reader experience wholly different from the print edition, one that can engage your readers in more active, more personal ways than any other format class.

- Writer
- Story editor
- Managing editor
- Layout artist
- Production artist
- Paginator
- Illustrator
- Photographer
- Photo retoucher
- Videographer
- Video editor
- Voiceover talent
- Audio mixer
- HTML programmer
- HTML5 programmer
- Developers for Java, JavaScript, PHP, Ruby, ColdFusion, Oracle, MySQL, IIS, and others
- Web server administrator
- Web analytics expert

Custom-Coded Apps

If none of the other format classes fit your publication needs, consider building (or hiring a programmer to build) it as a custom app. Custom-coded apps offer the ultimate freedom in functionality, doing whatever you need your publication to do and presenting your publication in any manner you desire. You can locate quite a few custom-app developers with just a moment or two spent with Google, or you can place ads for them on Monster.com, CareerBuilder.com, oDesk.com, and other common creative and programming job listing sites.

Because a custom-coded app will be built to your unique requirements and specifications and could literally be and do anything, I won't cover that particular subject in detail in this book.

HTML5

HTML5—Hypertext Markup Language, version 5—is a radical departure from previous versions of HTML. When the World Wide Web was first devised and used by government agencies and universities, it was text-only, with minimal formatting support—HTML, version 1. Quickly its users realized that, even for academic documentation, they needed to incorporate imagery, tabular data, color, and more customizable content markup; thus, HTML 2.0 was born. HTML 2.0 allowed for the use of images and basic text styling including several styles the world would rather forget, such as the <blink> the <marquee> tags.

The web continued to improve every few years up through HTML 4.01, which was the version feature-rich enough to spawn Internet application and social media websites like Facebook, Twitter, adaptive content pages, and so on. Think about everything you saw on the web, all the things that were possible, back between 2007 and 2010. That was all HTML 4.01.

Now enter HTML5, which is as far beyond HTML 4 as HTML 4 was beyond HTML 2. Of course, HTML5 still runs websites and web applications, but it is much more feature-rich than the code needed to produce a simple shopping website, blog, or even microblogging service like Twitter. HTML5 includes a plethora of multimedia and rich interactivity features, features that used to require add-on technologies like Flash, Java, and *Virtual Reality Modeling Language (VRML)*. Complex animation, dynamic content replacement and modification, slideshows, and much more are built directly into HTML5. HTML5 can do just about everything Flash can, but in a file format that is semantic, internationally approved and fully compatible with modern computers, tablets, smartphones, and even many handheld ereaders.

With such universal support and flexible capabilities, it's no wonder that HTML5 is rapidly becoming one the best formats for digital publications. Many publications are

being created in HTML5, and readers are being given access through the web, which, of course, usually entails no publication licensing fees; App Store, Google Play, or Windows Store royalties; or other expenses common with the creation of apps. Distributing via the web means publishers have to get creative about enticing mobile users to find and visit the publications, though.

Other publishers are producing HTML5-based publications as apps available for sale in the App Store, Google Play, or Windows Store. Some of these are self-contained, meaning that once the user installs the app and downloads a publication or issue, the entire content of the publication is stored in the device's memory. Some apps are merely wrappers that store none of a publication's content beyond perhaps a thumbnail of its cover; rather, these wrappers are chrome-less, custom-branded web browsers that link directly to HTML5 publications located on publishers' or service providers' websites. In these cases, the removal of the browser chrome, title bar, bookmarks bar, and so forth convince readers that they're reading directly inside a custom app; they'll never realize they're actually reading content sitting on a web server and not on a device's internal storage. Adobe Digital Publishing Suite and Aquafadas Digital Publishing Suite, the two tools to which Chapters 12–14 are devoted, are frequently used to build such HTML5 publications.

HTML5 content can be designed with almost as much precise control over the layout as you'd have with a PDF or interactive magazine or as a layout that adapts to the screen on which it's viewed. With its full support of modern media and built-in code for animations and interactivity, it can be every bit as engaging to readers as any other format.

What HTML5 Offers

At a glance, here are the big characteristics of HTML5 relative to digital publishing:

- Viewable on tablets, computers, smartphones, and some handheld ereaders
- Can store publication content on the web or contained within app
- Web-based versions can be instantly updated without App Store, Google Play, or Windows Store update notifications
- Obtained as single-issue/one-off standalone app; as single-title, multi-issue, branded newsstand app; or as part of a newsstand of multiple titles
- Available in-publication or in-app subscription ability
- Available issues delivered automatically to subscribers
- Precise layout control

- Liquid (screen-adaptive) layouts
- Supports audio, video, animation, rich interactivity
- Supports forms, games, web content
- Supports dynamic, server-fed content
- Can be database-driven
- Content may be fully customized by reader
- Linear and nonlinear reading capabilities

What HTML5 Does Not Offer

Conversely, if you want the following characteristic in your digital publication, then HTML5 is decidedly not the right format to choose.

- Readable by web browsers or devices released prior to 2013

HTML5 Publication Examples

Figure 2.6 shows a few titles published in HTML5, as either web-based or app-based content.

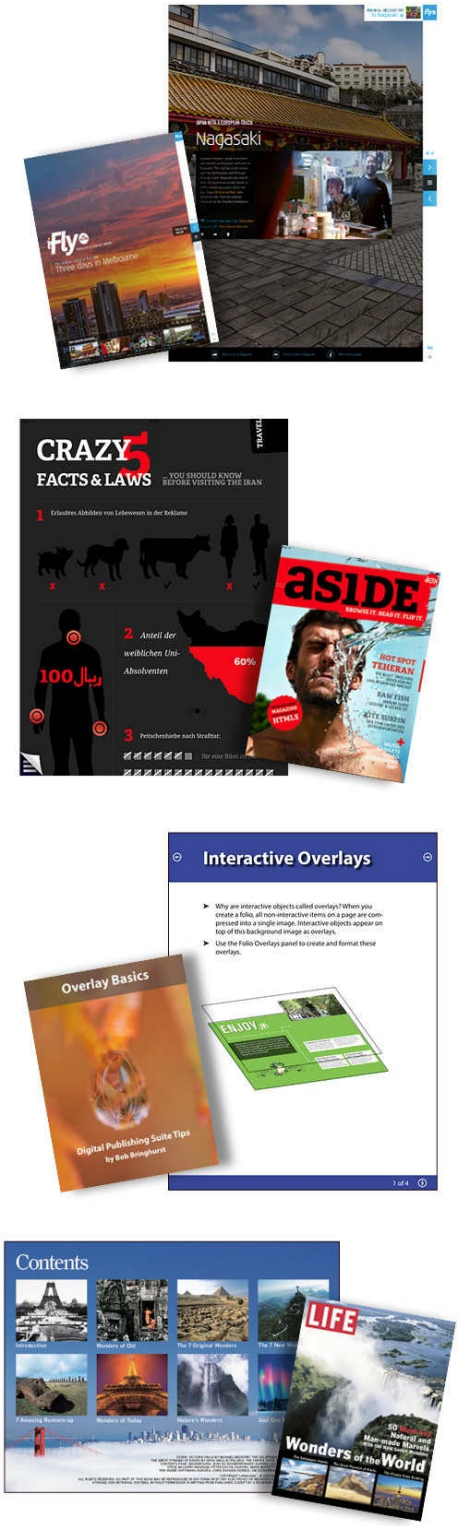


Figure 2.6: HTML5-based publication examples

Top to bottom: iFly KLM, January 2015, Aside Magazine (demo, date unspecified), DPS Tips Overlay Basics, by Bob Bringhurst (a book built using Adobe DPS with pages built as embedded HTML5), and LIFE Wonders of the World (a single-edition book built as an HTML5 book format).

HTML5 Production Roles

Because HTML is a markup language and HTML5 is even more programming-centric than previous versions of the language, you'll need to either learn or hire the requisite

skills. Even though InDesign can create HTML5-based digital publications publications that adapt to the screen on which they're viewed, other programs, such as Dreamweaver and Muse, offer HTML5 creation in similarly graphical user interfaces; some even include direct PDF-to-HTML5 conversion ability. Despite the availability of WYSIWYG layout applications that will export to HTML5, it's important to know the HTML5 language itself in order to tweak code and accomplish effects not yet possible via layout application export.

Specifically, you'll need your team to cover the following roles, depending on which forms of interactivity and media you want to include:

- HTML5 developer
- Writer
- Story editor
- Managing editor
- Layout artist
- Production artist
- Illustrator
- Photographer
- Photo retoucher
- Videographer
- Video editor
- Voiceover talent
- Audio mixer
- Developers for JavaScript, PHP, Ruby, ColdFusion, Oracle, MySQL, IIS, and others
- Web server administrator
- Web analytics expert

CHAPTER

3

Digital Publication Types and Their Markets

Now that we've examined the characteristics and capabilities of the available digital publication formats, it's time to think about the kind of content you want to disseminate digitally. It's all rather subjective, but I'll identify the purpose, character and use of different publication types as well as explain which format classes are best suited to each type.

In this chapter, you will learn about the following publication types:

- Ebook
- Fixed-Layout Ebook
- Emagazine
- Enewspaper
- Etextbook
- Digital Comic Book

Quick Reference: Publication Types in Format Classes

Table 3.1 provides you with an at-a-glance reference to the format classes and the publication types that will work with them.

Table 3.1: Format classes and suitable publication types

	EPUB	Fixed-Layout	Kindle formats	PDF	Digital replica	Interactive magazine	HTML5
Ebook (text-heavy, minimal imagery, minimal layout control)	✔		✔	✔			
Ejournal (text-heavy, moderate layout control, minimal interactivity)	✔		✔	✔			
Emagazine (absolute layout control, little or no multimedia and interactivity)		✔	✔		✔		
Emagazine (absolute layout control, fully interactive)				✔		✔	✔
Ecatalog (absolute layout control, image-heavy)		✔	✔	✔	✔	✔	✔
Eyearbook (absolute layout control, image-heavy)		✔	✔	✔	✔	✔	✔
Enewspaper (text-heavy, moderate layout control, minimal interactivity)	✔		✔				
Etextbook (nonproprietary system)		✔		✔		✔	✔
Digital Comic Book (full-page imagery)		✔	✔	✔	✔		

Legend:

✔ The indicated format class is suitable (but not necessarily ideal) for the publication type.

Ebook

An ebook is a publication that is primarily text, such as a novel or other book designed to be read in its entirety, cover to cover. Ebooks may include images or videos here and there but are not by any means considered image-heavy. The content of ebooks follows a simple layout structure. For instance, in the case of a novel, you may have chapter numbers, chapter titles, the first paragraph of a chapter (for example, one that doesn’t indent its first line), and then the average paragraph. A nonfiction ebook, say a history book or a book about digital publishing with InDesign, might have a slightly more complicated structure that includes multiple levels of headings and quite a few images and captions. Ebooks can be created using any digital format, but typically use, and are best

suited for, the EPUB format, making them readable by a wide range of devices, including handheld ereaders and ereading software available for nearly every computer, tablet, and smartphone (see Figure 3.1).

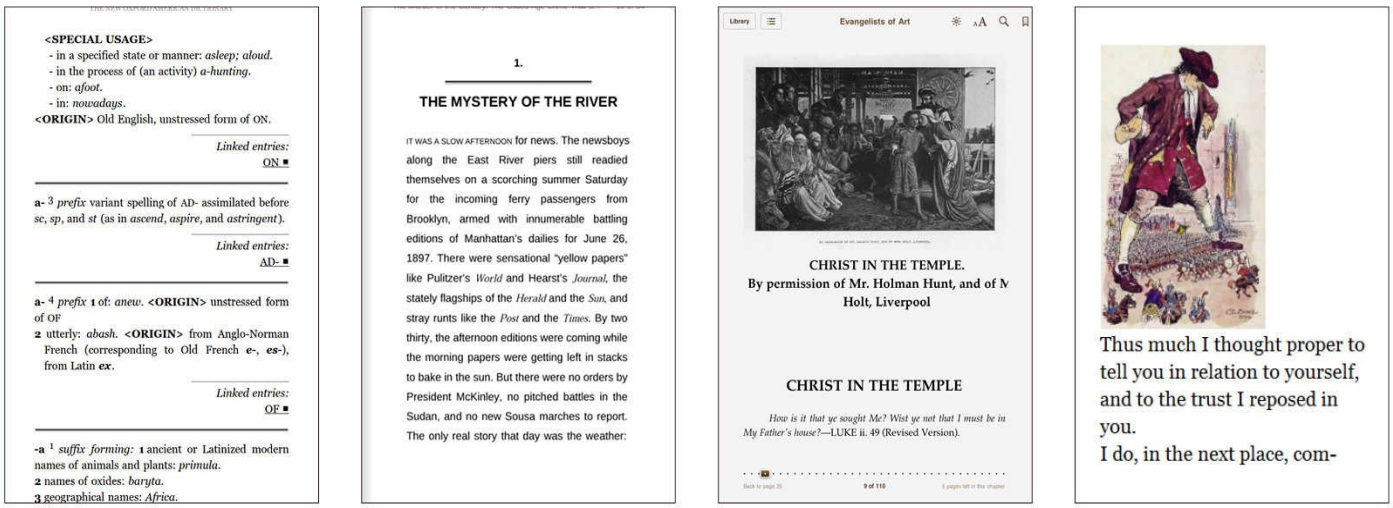


Figure 3.1: Examples of ebooks

Left to right: *The New Oxford American Dictionary* on a Kindle 7-inch tablet; *The Murder of the Century* by Paul Collins, as displayed in the B&N Nook app on a 10.1-inch Android tablet; *Evangelists of Art* by Rev. James Patrick, B.D., B.Sc., as displayed in iBooks on an iPad, and; *Gulliver's Travels* by Jonathan Swift, viewed on an iPhone using th Kobo Reader app.

Producing ebooks is relatively easy compared with other types of digital publications and doesn't require much of an investment beyond a computer and an Internet connection. Ebooks may be produced with InDesign or with a variety of other programs, including free and simple text-editing programs. Moreover, there are usually no fees required to publish an ebook in the major ebookstores, unlike more media-rich publications, whose requisite formats often entail a publishing license, costs per copy distributed, and other fees.

What is an Enhanced Ebook?

Enhanced ebook is a nebulous term, which, thankfully, is beginning to fade out of the publishing lexicon. When EPUB 2.01 was the current version, enhanced ebook was a term often applied to ebooks that used the upcoming but not yet finalized EPUB 3 specification to include things like audio captioning or the equation language MathML. You'll also find apps in the Apple App Store, Google Play app store, or Windows Store that use digital magazine–class interactivity features within a media-rich book; those apps, too, are considered enhanced ebooks. Thus, any book-style content presented in a technology beyond the capabilities common to the ebook publication type or the EPUB standard can be considered an enhanced ebook.

Consequently, there are no hard-and-fast rules about what the enhanced ebook publication type is or is not, nor is there an easy way to define production roles or the business of the enhanced ebook publication type. Rather, you have to look at the definitions and information of the publication type each individual enhanced ebook most closely matches—if it's an EPUB with a little JavaScript thrown in to provide extra functions, then, for all intents and purposes, it's an ebook; if the book includes lots of interactivity, touchscreen features, and multimedia, then it is more accurately categorized as the digital magazine type, and so on.

Fixed-Layout Ebook

Fixed-layout or picture-book ebooks are those that, unlike a standard ebook, are heavily dependent on imagery and have risen in a very short time to a level of popularity that sets them apart as their own unique publication type. They're so image-dependent, in fact, that this class of publication often displays on every page background images or full-page photographs or illustrations that serve to tell the story at least as much as included text does. Examples of such publications include many children's books or so-called coffee-table books, wherein imagery is paramount and text is of equal or lesser importance. Although based on EPUB, fixed-layout ebooks do not automatically adapt to fit the screen on which they're viewed. Most of them are *designed* to fully fit the most popular device screen sizes, but they won't automatically adapt to other screen sizes; instead, readers may have to zoom or scroll horizontally and/or vertically to view the entirety of each page, though smart fixed-layout ebook designers are careful to create versions that don't require manual zooming or scrolling.

Fixed-layout ebooks are effectively a hybrid between feature-slim reflowable ebooks and the precision design and interactivity possible in the interactive magazine class. A fixed-layout book can contain not just numerous and heavy imagery, but also sound effects, read-a-along audio, and narration; videos and animations; touch-interactive elements that activate audio, video, animation, or other effects; text with advanced styling including type set in non-rectangular areas and type that flows along circles, spirals, waves, stair-steps, and other directions, and; all the imagery, multimedia, and text objects can be laid out with absolute, pixel-perfect exactitude with reliance that it will display that way on all the devices that can display fixed-layout ebooks.

Chapter 8, “Creating Fixed-Layout eBooks,” builds on the skills you’ll obtain in building and publishing reflowable ebooks in Chapters 5–7 to create fixed-layout ebooks for Kindle, iBooks, Kobo, NOOK, and more.

Ejournal

The ejournal publication type is for multistory periodicals that are very heavy on text with only a few images and illustrations here and there, as one might find in industry, trade, scholarly, or academic publications such as the *Journal of the American Medical Association*, *The Magazine of Fantasy & Science Fiction*, and similar publications (see Figure 3.2). Ejournals are, in essence, ebooks that, instead of being broken into chapters, use the same function to separate articles, with each article having a table of contents entry and, within the EPUB archive itself, created as a separate XHTML file. Images, audio, and/or video are included inline within the content. Issues may be purchased one at a time or delivered to subscribers automatically via subscription.

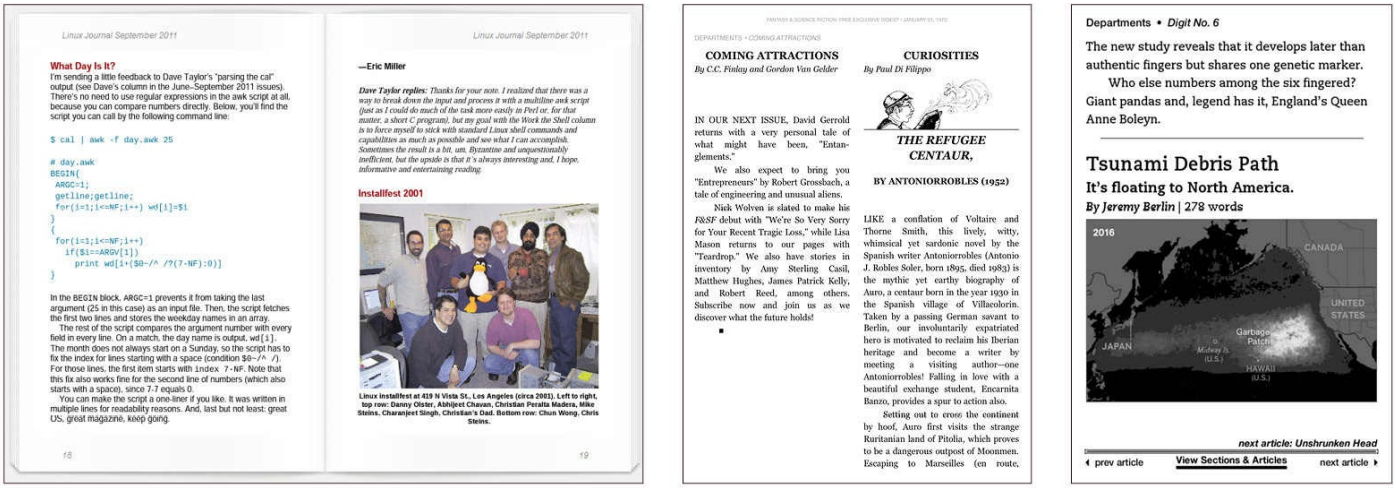


Figure 3.2: Examples of ejournals

Left to right: *Linux Journal*, September 2011, as viewed in Sony Reader for PC, *The Magazine of Fantasy & Science Fiction*, March 2015, and *National Geographic*, December 30, 2011, as published to Kindle through the Kindle Newsstand,

Of course, electronic journals can be published in format classes other than EPUB, as well—as interactive magazines, as digital replicas, as HTML5, as PDF, and so on. Their content, however, makes them ideally suited for publication as EPUB, which maximizes their reach across devices. Many publishers produce them in multiple formats—as visually rich interactive magazines and HTML5 for devices that support those formats, as EPUB for ereader access, and as PDF for general computer use.

On the flip side of the equation, many normally image-heavy periodicals even decoct their stories and photos down to ejournal format to take advantage of the additional distribution channels offered by the EPUB-powered class. *National Geographic* (Figure

3.2b) is the perfect example of this tactic. One would be hard-pressed to name a periodical more renowned for photography than *National Geographic*, yet there it sits on Kindle, NOOK, and other handheld ereaders, in EPUB format, with a scant one image per article. And it does well, commercially, in this format in addition to, and separate from, the other publication format types employed to disseminate the same issues to readers—those classes being print, of course, as well as digital magazine and digital replica editions.

> **Tip: Using Ejournal Styling for Non-journal Content**
>
> If you want to publish journal-style content, look to the preceding chapter's lists of things the various publication types do and do not offer to help you decide on the best format (or formats) for your journal. Your original content need not be in journal format to be publishable as an ejournal; look to the example of National Geographic discussed in this section.

Emagazine

Emagazines have been around for decades in different formats, but they exploded with the debut of the iPad, expanding as fast as the tablet industry itself—with no signs of slowing

Magazines are multistory publications that mix many photographs and illustrations with text, often with visually rich page design and advanced typography. When moved into the digital realm, all those attributes remain but are augmented by multimedia (audio and video), hyperlinks, and, depending on the format class, often a good deal more multimedia and interactivity.

The best format class for a digital magazine depends on the nature of the content, the level of interactivity desired, the magazine's audience and distribution, and the budget for the publication. Depending on those criteria, digital magazines can use nearly all format classes, including EPUB, PDF, HTML5, digital replica, interactive magazine, and custom-coded app (see Figure 3.3).

Figure 3.3: Examples of digital magazines using different digital publishing formats

Left to right: PDF format (*TipSquirrel Magazine*, February 2015), digital replica format (*SciFiNow*, March 2015), Interactive magazine format (*Mac|Life*, March 2015), and HTML5 format (*Aside Magazine*, demo, no date specified).

The most successful emagazines are those that target multiple platforms and devices through several different format classes. For instance, *PC Magazine* (Ziff Davis Media), a monthly for computer, tablet, and gadget enthusiasts and professionals, publishes an EPUB-based version (almost certainly a relatively simple export of an issue's stories, with their lead images inserted at the beginning) through Amazon, Barnes & Noble, and Sony for reading on Kindle, NOOK, and Sony Reader ereaders and ereader software, *and* a digital replica of its print edition (the print edition is exported to PDF and from there converted to flat digital replica), published also through Amazon and Barnes & Noble for viewing on their respective tablets, client software, and web clients, as well as via the Zinio newsstand and viewer app, which reaches iOS, Android, FireOS, Windows, and Mac OS X.

The digital replica version doesn't even fully take advantage of the format—the emagazine doesn't include media not in the print edition, and it doesn't make URLs within its content into clickable or tappable hyperlinks. Despite this failure to take full advantage of the medium, *PC Magazine* is reaching a broad audience with its two electronic versions (in addition to publishing articles on its website).

National Geographic has virtually the same multiformat/multidevice distribution method, sending EPUB versions to devices that support them and digital replicas to more advanced devices. Other publications are following suit, but not all of them are stopping at digital replicas. Many are also incorporating the rich interactivity in the interactive magazine format class to exploit the full potential and user interaction possible on tablets.

Tip

As you consider publishing your digital magazine, heed the example set by others: If possible, don't limit your publication to just one format. Publish it in as many formats as possible to reach the widest possible readership. Multiple formats can even mean multiple sales of the same ad spaces to different advertisers who want to target different demographics.

Ecatalog

A typical catalog is a publication that lists products for sale and provides a means for readers to purchase those products. Tablets represent a tremendous opportunity for publishers to take their catalogs digital, though few have as yet taken advantage of the possibility. Ecatalogs (and electronic *magalogs*) can be produced as ebook-like EPUBs and, of course, the old standby PDFs, though the interactivity and advanced content possible with interactive magazines is often the best way to go.

Just think about it: In a clothing catalog readers could touch color swatches beside a photograph of a jacket to make the photograph change, displaying the garment in the selected color. Perhaps the reader can even watch a commercial for the product right on the product page. Or maybe the reader is a returning customer, whom you ask to log into her account directly *within* the ecatalog. Once a customer is logged in, the ecatalog communicates with a web-based database to populate a sidebar or other section of the page with items based on the customer's previous purchase history. How about a sale? On the Friday after Thanksgiving all the prices in the ecatalog app you began distributing six months ago automatically update to reflect Black Friday or holiday-season sales—without requiring the reader to download an update to the ecatalog app. Conversely, maybe you want to *force* the reader to update the ecatalog app after that edition of the catalog expires, thus making sure that every potential customer is looking at the latest selection of products, the most up-to-date pricing. All of this and a great deal more is possible in the digital magazine publication type, so why limit that type to only *magazines*? It works just as well—if not better—for catalogs.

There are many, many ecatalogs out there (see Figrue 3.4). Most are digital replicas of print editions, often distributed as part of dedicated catalog newsstand apps such as CoffeeTable, TheFind, and Google Catalogs. A few ecatalogs, like Land's End and Ikea, go beyond the app via PDF that is digital replica, leveraging the capabilities of the mobile platform to enhance user experience and increase sales. Lands' End, for instance, lets the shopper try different colors and styles directly on the model in photographs via touch triggers. Ikea's famous decor catalog lets users photograph their own rooms and place certain catalog products in the photograph.

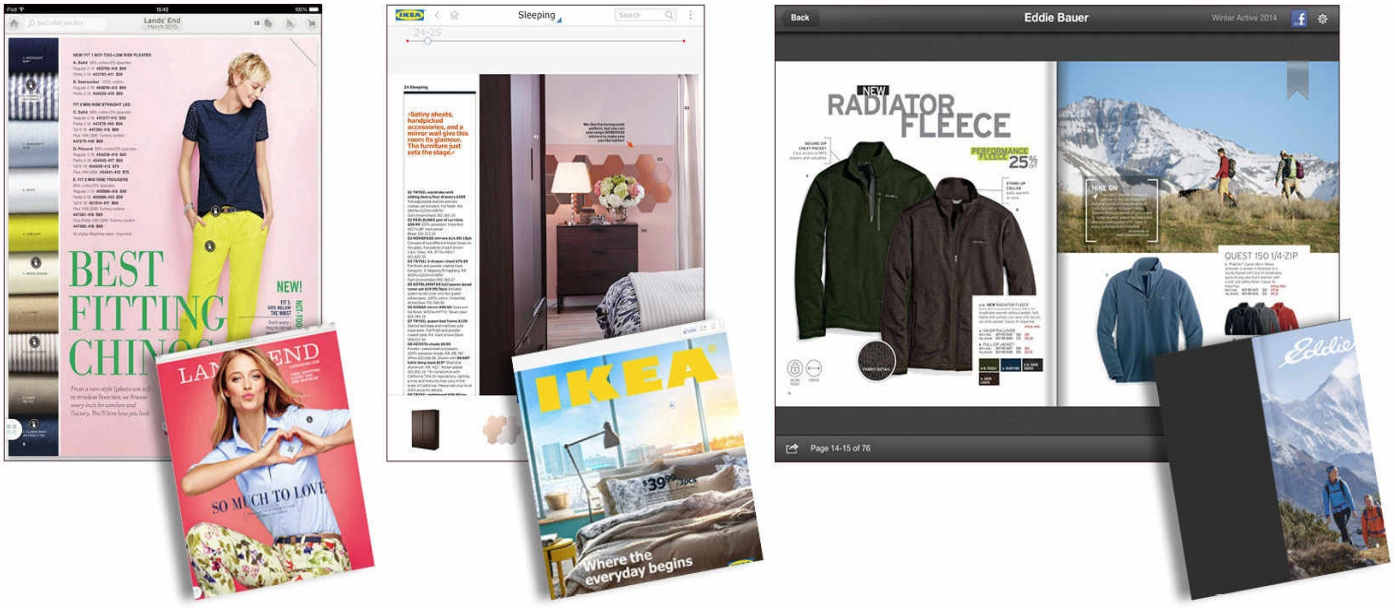


Figure 3.4: Examples of ecatalogs

Left to right: Land's End March 2015 catalog as published to, and viewed through, the CoffeeTable app on iPad; IKEA Catalog 2015 USA, part of the IKEA Catalog newsstand app, viewed on iPad, and; Eddie Bauer Winter Active 2014 catalog as published to, and viewed through, the Catalogue app on iPad.

The Promise of Eyearbooks

The digital magazine publication type could be used to create richly interactive eyearbooks. Instead of giving students, alumni, and faculty flat and costly printed yearbooks that they sign with pens, give them interactive, tablet-based eyearbooks that, upon launch, play the school anthem and that they can sign with a stylus or via form field. Rather than flat grids of headshots and captions, create dynamic fly-bys of student photos, complete with hypertext that, when tapped, locates mentions of the student throughout the entire eyearbook, plays a video greeting by the student, peeks inside the student's virtual locker of mementos, opens the student's resume, or initiates a secure email to the student.

Although there are fees associated with publishing a digital magazine type of publication, unlike an EPUB, those fees, when divided amongst and passed along to students, are far below the average $50–70 per copy for print yearbooks.

When I wrote the first edition of this book in 2012 there were no companies offering eyearbooks. I suggested at that time that the lack of companies offering such a product was an opportunity for readers to blaze a new trail. I don't know how many of the more than dozen eyearbook producers started as a result of that advice, but I do know that, three years later, there's still plenty of room for more. The overhead is low, the profit potential high, even while undercutting traditional yearbook prices per copy.

Enewspaper

Any publication type or format class can be used to format content like a newspaper or newsletter. When I talk about the enewspaper publication type, I specifically mean publications with lots of articles, running on short lead times between content creation and

publication. Not every enewspaper is a daily, but every enewspaper has to move fast to create, edit, publish, and distribute its content.

Most successful enewspapers follow the lead of digital magazines (or vice versa), targeting multiple formats, devices, and distribution channels. For example, *The New York Times* is available on Kindle and NOOK ereaders, ereader software, and tablets by those manufacturers as an EPUB-based collection of articles. Naturally the EPUB version is very stripped down, owing to the limitations of the format and the devices; it offers text articles with minimal imagery and few, if any, inline hyperlinks. The *Times* also reaches out to more capable devices with an HTML5-based edition that runs through a branded app on iOS, Android, and Windows OS phones and tablets, and the web version at http://nytimes.com. Figure 3.5 displays the *Times* in several formats on different devices.

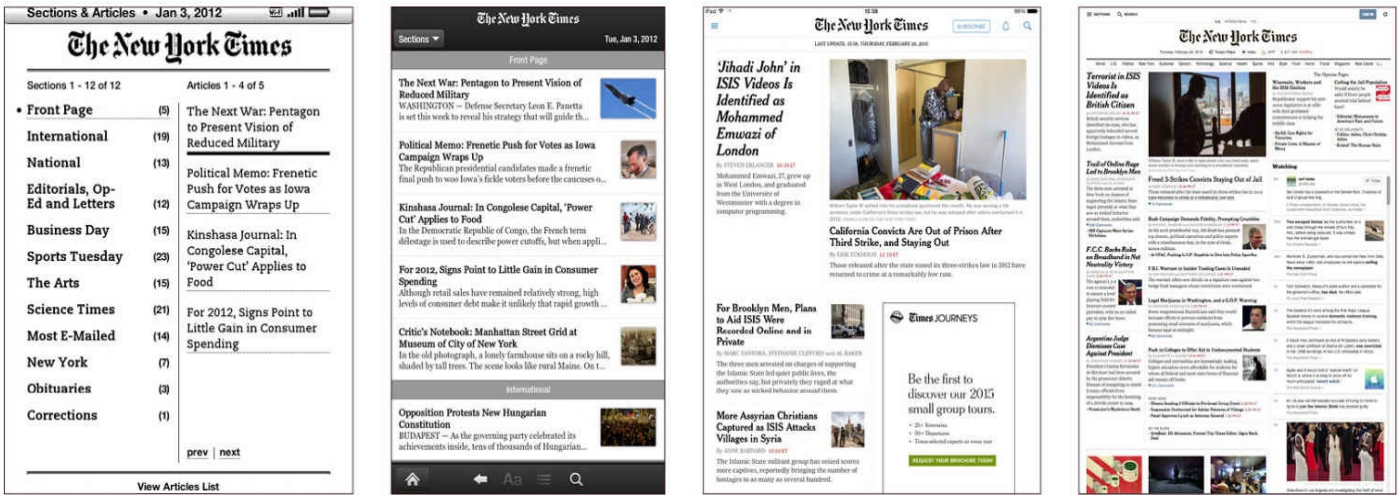


Figure 3.5: The New York Times daily newspaper in various distribution channels and formats

Left to right: EPUB-based running on Kindle handheld ereader, EPUB-based on Kindle Fire 7-inch tablet, HTML5-based presented within the *New York Times* iPad app, and the live NYTimes.com web version.

Etextbook

An etextbook is mostly prose text but also relies heavily on other types of content, including tables, photographs, illustrations, charts, graphs, mathematic or scientific equations, captions, audio clips, video segments, self-test quizzes, and other features beyond the ken of the average ebook. Often the layout requires absolute control over element positioning in order to effectively present the content. The structuring of etextbooks' content is more complex than ebooks because the content itself is more complete, requiring not just chapter number and names, basic headings, figures, and captions, but numerous other repetitive element styles. Etextbooks can be created from any of the available digital format classes, with varying features and drawbacks. Figure 3.6 shows a few etextbooks currently available from the various ebookstores.

Figure 3.6: Examples of etextbooks

Upper row, left to right: *Creative Writing: Learning from the Masters*, published by Academy of Achievement; *Digital Literacy & Citizenship Teacher Edition: Grades 6–8*, published by Common Sense Media, and; *Hacking Electronics, ar Illustrated DIY Guide for Makers and Hobbyists*, by Simon Monk. Lower row, left to right: *Current Medical Diagnosis & Treatment 2015* by Maxine A. Papadakis and Stephen J. McPhee; *Copyright Basics* from Ohio State University Press and; *Biochemistry Free and Easy 2.0*, by Kevin Ahern and Indira Rajagopal.

Even though I consider the etextbook to be one of the four major digital publication types (accompanying books, magazines/catalogs/yearbooks, and newspapers), it's also the most volatile of all the classes. Numerous polls and studies of educators and students from just about every level of education reveal and continuously reinforce two interesting and all but conflicting facts. First, educators and students want more textbooks and educational material made available electronically, on tablets, ereaders, and/or computers. Second, neither educators nor students want to use the electronic textbooks and educational materials already widely available today. They don't like the limited layout control of ebook formats—even fixed-layout EPUB—nor do they like the narrow selection of compatible devices for interactive magazine tablet publications. Similarly, PDF, HTML5, digital replica, and other formats fail to satisfy the needs of academia because of those formats' limitations in terms of interactivity, device availability, reader annotation, or content customization by educators themselves, whether in the K–12 or higher education brackets.

Given that the textbook market for higher education alone is worth more than $7

billion (*The San Diego Union-Tribune*, February 27, 2012 and holding steady into 2015), several companies are working very hard to build a format and publishing process to address all the needs of educators and students. Though some (outdated) predictions suggest that etextbooks will account for as much as 50% of academic book sales by 2018, today's figures have it in the low single-digits. Why doesn't digital have a bigger chunk of the $7 billion textbook market? Because no one seems to have built the right format yet, though everyone is trying.

Barnes & Noble has been trying for several years, with its NOOK Study etextbook application for Mac and Windows. Unfortunately, just as NOOK Study started gaining brand recognition, B&N rebranded it the confusingly named Yuzu. Yuzu overcame NOOK Study's computer-only limitation by offering etextbooks on iOS and the Web, but, like the rest of the NOOK line, it isn't fairing well compared to the competition.

Two etextbook systems took early leads in the market, though they have no shortage of competition for them. The first early leader was Kno, which offered etextbooks in a format almost identical to rich-media tablet digital magazines but ran not only on an iPad, but also because they're HTML5-based, in any modern web browser on any device, including desktop and laptop computers, Android or other tablets, and even smartphones. Kno also offered the same textbooks as PDFs for those who prefer that format and the annotation and markup features inherent in Adobe Reader and Acrobat. Kno briefly offered its own hardware in the form of a dual-screen, folding tablet aimed squarely at students who want to be able to access two textbooks or two places in a text simultaneously—a common need identified by many students. The device fizzled because it lacked the ability to do much more than work with digital textbooks, and tablet owners, particularly college students, want a do-it-all tablet—astrophysics *and* Flappy Bird, if you will.

The other early leader, Inkling, approached the problem of etextbook adoption from the perspective of the professors and faculty rather than from that of publishers or even students. Inkling claimed that educators want to be able to fully customize textbooks, dropping chapters or sections the educators don't feel are relevant to their courses adding material from other sources, often material the educators themselves author. Thus, Inkling offered a library of customizable educational material. Educators could purchase, build, and push to students' tablets digital textbook content à la carte, adding in their own essays, articles, chapters, notes, highlights, text, video, audio, quizzes, and other types of content. Those customized texts could then be saved and reused by professors, shared with their colleagues, or given back to Inkling to offer to its other customers, often with royalties paid back to the original educator for their contributed content. Needless to say, educators loved this approach, though some traditional textbook publishers had difficulty seeing how Inkling's method could ensure protection of their content from intentional or

unintentional piracy, as well as secure adequate royalties for them, when educators could customize just about everything within publishers' materials.

Ingram, CafeScribe, CourseSmart, and several others devised their own digital textbook systems, competing to meet the needs of educators, students, and publishers and find that magic combination of features that would make their etextbooks the official system.

In January 2012 Apple introduced its solution to the etextbook market, and, in standard Apple style, declared its solution would "reinvent the textbook." The solution came in the form of iBooks 2.0 and iBooks Author, a free, Mac-only tool that enables anyone to create etextbooks (see Chapter 8 for a brief discussion of iBooks Author). Targeted first at etextbooks for high-school students, Apple's strategy mentions "potential" for higher-education applications of iBooks etextbooks. The initial response to the announcement was stunning, with 350,000 etextbooks sold through iBooks in the first three days following the announcement (*All Things D*, January 23, 2012). As was the case with all preceding etextbook technologies, however, educators were quick to point out the flaws in Apple's etextbook strategy. First and foremost, iBooks etextbooks run only on iPads, meaning that until every public-school child in the interested nation owns a personal iPad, the school can't standardize on iBooks. The school can't even incorporate those titles as secondary or even tertiary educational materials, because laws require that every student be given access to the same resources as every other student. Whether you want to call America's tough economic times a recession or not, unemployment and poverty are simply not compatible with 100 percent K-12 iPad ownership.

The CEO of educational publisher McGraw Hill said in an interview that a typical school pays $75 per textbook and uses that same book for five years, working out to a $15 cost per student, per year. Even with an educational discount, Hillsborough County, Florida, paid $479 each for 900 iPads it bought from Apple in May 2011. The iPads were distributed to only two middle schools in the district, and funding for the purchase came from the federal Title (i) and Magnet Schools Assistance Program grants rather than from the district's own shrinking operating budget (*Tampa Bay Times*, May 19, 2011). Assuming students never break their iPads, the same units can be utilized for five years (it's a real stretch for technology of that grade to be usable that long, but let's assume). That makes the cost of one iPad $60 per year, which is just a little less than the five-year cost of a printed textbook. *Now* we can add the per-annum cost of $9.99, $14.99, and $19.99 iBooks etextbooks on top of that, one each for English, math, science, social studies, and so on. Then there are secondary language textbooks, elective class textbooks, and on and on. The cost for one student's iPad adds up pretty quickly.

If Apple provided iPads *and* etextbooks to schools at costs competitive with print textbook purchases—meaning iPads and all the textbooks for less than $200 per year—or

if Apple opened iBooks etextbooks up to being read on other platforms like Android tablets, FireOS devices, or Windows computers, then maybe iBooks textbooks could see widespread adoption in K-12 education. As the system stands now, only private schools and more affluent public school districts can take advantage of iBooks. Until every child has a tablet or Mac, iBooks etextbooks are all but useless to K-12 on a large scale.

Higher education, which sees a greater number of students able to attend class with tablets or laptops, offers a greater potential for the format in the near future. Of course, requiring a college freshman to buy a new iPad for $399–$829 on top of the cost of books, room and board, and everything else the student needs would be a tough sell to some colleges, but it's a far easier pitch than in the K-12 arena, especially if Apple follows Amazon's lead and offers etextbooks for rent at lower prices than outright purchases. Some colleges are even providing students with iPads, passing the cost back to students as part of tuition fees.

Costs alone aren't the only problem cited by iBooks critics in the educational industry. Apple maintains absolute control over any content distributed through the iBookstore (or the App Store or iTunes). That means Apple directly control which etextbooks are available to schools and which aren't; Apple is in a position to subtly or not-so-subtly influence education by tailoring its etextbook offering. Personally, I think a tech company like Apple might do a better job than the U.S. government has done at influencing public education in the U.S., but that's still way too much power to put in the hands of a private-sector company whose primary responsibility is a financial one to its shareholders, not a moral one to our children.

Are iBooks etextbooks the future? Well, they certainly aren't the present. With changes to Apple's content control policies, government-appointed textbook reviewers, major pricing incentives, and the expansion of iBooks onto other platforms the way Apple did with iTunes, then I can easily see iBooks becoming the standard in etextbooks. But remember that while Apple is rushing to incorporate educational publishing into its empire, Barnes & Noble, Amazon, Kno, Inkling, and more are driving toward the same goal.

Amazon has long sold textbooks as ebooks for Kindle devices and software, but they lacked features critical to academia, features such as full annotation and content highlighting, copying of content with citation, and, of course, advanced layout control. In the first quarter of 2015 Amazon launched two simultaneous programs relevant to textbooks. The first sought to overcome the limitations of ebook-style etextbooks in the form of Kindle Textbook Creator, a proprietary application to create etextbooks from PDFs for distribution on Kindle and FireOS devices. The second initiative leverages print textbook sales by Amazon operating campus bookstores starting with pilot locations at the University of Massachusetts at Amherst, the University of California at Davis, and Purdue

University. Amazon's operation offers students faster textbook delivery and discounted prices. The two efforts, though at first glance opposed to one another, may instead push Amazon to the lead in the etextbook market. Lightning may then strike twice with the company that all but single-handedly built the ebook into a universally accepted type of publication doing the same for etextbooks. The future will tell.

Given how fragmented and varied the ecosystem of etextbooks currently is, there is no one system or digital-content publisher I can advise you to use. None of the solutions currently available satisfies all the needs of its would-be markets, and each uses closely guarded proprietary publishing methodologies. If you'd like to distribute your etextbooks in a more open, less proprietary format class, however, such as PDF, digital magazine, or HTML5, then you'll find exactly what you need in this book.

Digital Comic Book

Though people have read digital comic books for years on their computer screens, the advent of the iPad and other tablets heroically rocketed digital comics into their golden age (pun intended). Rather than making a weekly trip to the comic-book shop, which, like the brick-and-mortar bookstore, is (sadly) a dying breed, comic fans can have digital editions of comic books delivered directly to their tablets. Tablets can store hundreds, even thousands, of comic books in a slim, light, and eminently portable package.

This golden age of digital comic books has lifted the barrier of the previously high cost of entry to would-be comic creators and publishers. Without the cost of printing and mailing their comics, any comic creator can now self-publish or work with one of several emerging small comic publishers and newsstand app makers to distribute their titles. In fact, beyond the cost of the Photoshop, Illustrator, or similar graphics programs that comic creators would have to own to design their panels and pages anyway, there are often no additional costs to epublish their comics. This allows them to keep cover prices down, which, of course, drives sales and generates profit.

Unfortunately, the two big comic-book companies, Marvel and DC, haven't yet learned that lesson. You would think that titles like *The Guardians of the Galaxy*, *The X-Men*, *Batman*, and *Justice League* would be among the first to find great success as digital comics, but alas, that's not the case—but not for lack of customer interest. Rather, the problem is that Marvel and DC, which now charge a $3.99–$5.99 cover price per printed 32-page comic book, are often charging the same rates for each digital comic. For 80 years the comic-book industry has justified every increase in issue cost by citing the rising cost of paper—and, more recently, fuel for trucks to ship cases of comic books from printers to retail outlets. The paper and fuel costs are irrelevant to the world of digital comics, so how can the big companies justify the same per-issue price? This question perplexes readers.

Digital comic books are usually simple JPG or PNG images of each page, with all the pages of a given issue compiled into a CBR or CBZ archive file. These two formats are simply renamed RAR and ZIP archives, respectively. Each page of an issue is a separate image, numbered sequentially, and then archived to RAR or ZIP. After archiving, the RAR or ZIP file is renamed CBR or CBZ, which is then read by any of several free or commercial digital comic-book readers available for computers and tablets. The series of images is then presented sequentially by the comic-book reader software—a glorified image previewer. In this way the average digital comic or graphic novel is a digital replica format rather than ebook format (see Figure 3.7).


COME ON, LITTLE MAN, GIVE ME THE TICKETS! DON'T BE AFRAID. NONE OF IT CAN HURT YOU! NOT REALLY!


WHUD
CHEATER!
YA AIN'T ALLOWED T' MESS WIT' DE FACSIMILATOR MECHANISM LIKE DAT!
STORM--?!
WE GOT RULES HERE, Y' KNO --
GAME OVER, "THING"!
DON'T CARE IF I GOTTA
-- YER DEFINITELY GOIN...

Figure 3.7: Digital comic book examples

Above: *Carnival of Souls: Welcome to the Show* (Carnival Comics Entertainment), viewed on a 7-inch Kindle Fire table in self-contained app, and; below: *X-Men*, Vol. 2, No. 89 (Marvel Comics), viewed in the Perfect Viewer comic book viewer app on a 10.1-inch Android tablet.

Digital comics in CBR and CBZ are just a series of images without interactivity. More interactivity is possible, however, with more advanced digital comic formats including fixed-layout EPUB and KF8 formats. Readers can be presented with multimedia graphic novel experiences that include music, sound effects, narration, animation, video, and directed reading that moves through the comic book page one panel at a time (see Figure 3.8). In Chapter 8, “Creating Fixed-Layout eBooks,” we’ll talk more about digital comic books and graphic novels and how to build them for publication to Kindle, iBooks, NOOK, and more. Additional digital comic book publishing tools are available from a variety of vendors; those proprietary tools are not covered in this book.

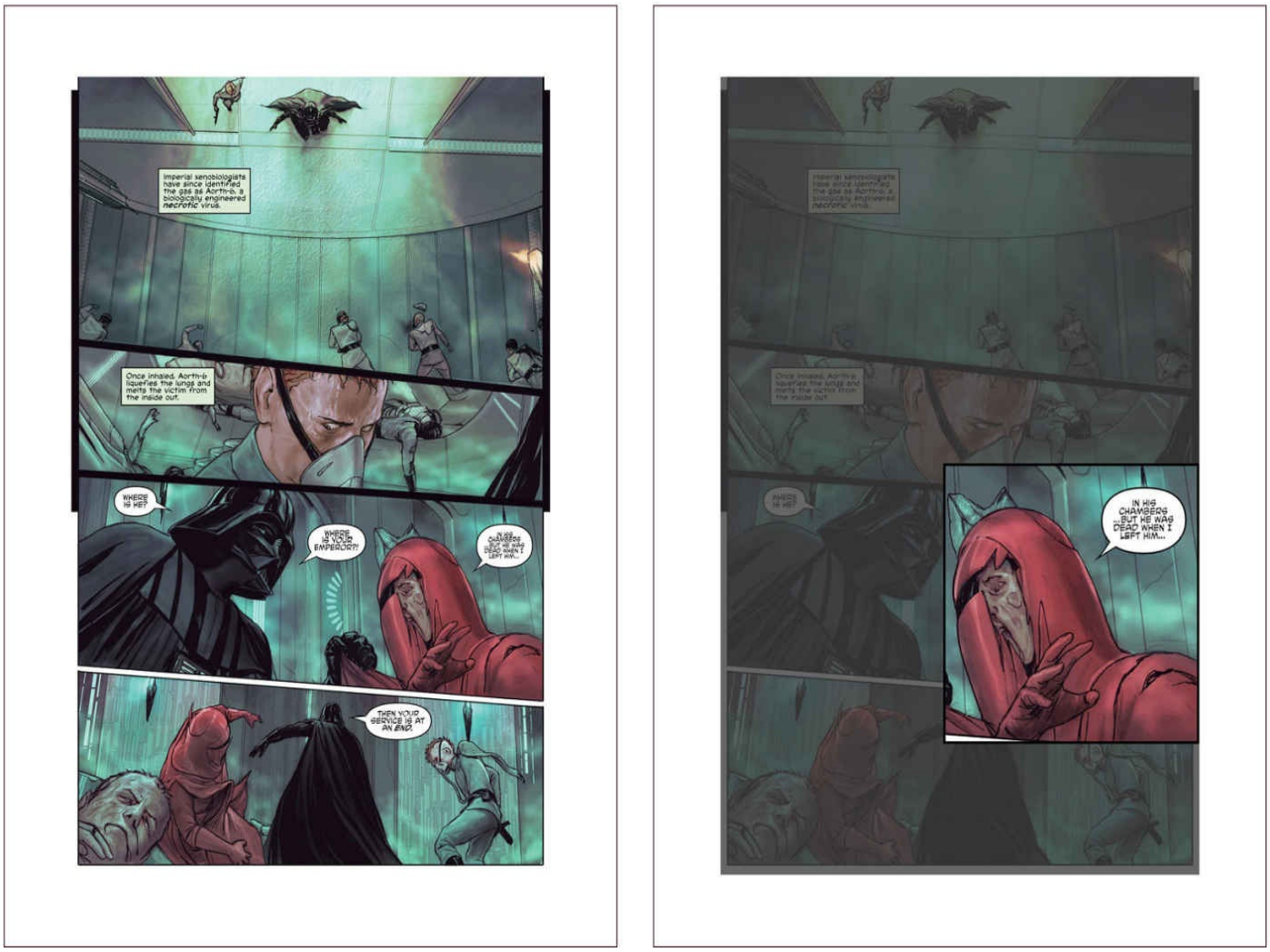


Figure 3.8: A digital comic book that offers panel-at-a-time reading

The graphic novel *Star Wars: Darth Vader and the Ghost Prison* (Dark Horse Comics) offers both full-page mode (left) and panel-at-a-time reading mode (right).

CHAPTER

4

The Facts, Figures, and Financials of ePublishing

Whether you are an aspiring self-publisher or the CEO of a major publishing house, a freelance designer or sales person, this chapter will provide statistics, figures, and examples to help you make sense of the business, economic, and marketing concerns of epublishing. Whether your intent is to sell yourself, your boss, or your clients, or if you just want to educate yourself about the realities of the world of epublishing, you'll find in this chapter an abundance of important, relevant data.

In this chapter, you will learn about the following:

- People and Their Device Usage
- The Business of eBooks
- The Business of Children's & Young Adult eBooks
- Authors and Their Incomes
- The Missing 30 Percent of the Data
- Self-Publishing
- The Business of eTextbooks
- The Business of eMagazines

Note

In previous editions of ePublishing with InDesign the types of statistics and data in this chapter were spread throughout the first three chapters or available only within the Teacher's Edition. For the first time all the facts, figures, and examples—and many completely new this edition—are consolidated into a single chapter to make it easy for professionals and educators alike to evaluate and reference a variety of data.

People and Their Device Usage

Before we get into specific market segments, financials, and examples, let's look at a few facts that impact all areas of epublishing.

- 32 percent of American adults own an ebook reader, up from 26 percent in 2013 and 19 percent in 2012 (Pew Research, January 2014).
- 42 percent of American adults own a tablet, up from 31 percent in 2013 and 19 percent in 2012 (Pew Research, January 2014).
- 85 percent of people say that mobile devices (smartphones, cell phones, tablets, and handheld ereaders) are a central part of their everyday lives (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 90 percent of people aged 18–24 stated that mobile devices are a central part of their everyday lives (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 81 percent of people who earn $75,000–$100,000 annually own tablets (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 79 percent of people earning more than $100,000 per year own tablets (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 81 percent of consumers age 35–44 own tablets (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 57 percent of tablet owners read on their tablets (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 43 percent of smartphone owners read on their phones (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 43 percent of smartphone owners read on their devices at least once per day (SalesForce *2014 Mobile Behavior Report*, October 2014).
- 57 percent of tablet owners read on their tablets at least once per day (SalesForce *2014 Mobile Behavior Report*, October 2014).
- More than 90 percent of consumers surveyed reported that access to the same content across multiple devices is somewhat or very important

(SalesForce *2014 Mobile Behavior Report*, October 2014).

The Business of eBooks

Is there money in producing ebooks? You betcha! Here are some facts to establish that point right up front:

- $27 billion in net revenue to reporting publishers for the U.S. book and journal publishing industry for 2013 (AAP report *U.S. Publishing Industry Annual Survey*, June 2014).
- 89 percent of 16 and older U.S. ereader (and tablet) owners read ebooks for pleasure (Pew Internet & American Life Project, April 2012).
- 71 percent of 16 and older U.S. ereader (and tablet) owners read ebooks for work or school; 49 percent report doing so daily (Pew Internet & American Life Project, April 2012).
- 49 percent increase in adult (all, fiction and non-fiction) ebook sales between January 2011 and January 2012 (AAP, March 2012).
- 150 percent increase in religious segment ebooks between January 2011 and January 2012 (AAP, March 2012).
- 67 percent of U.S. public libraries offer ebooks for lending to privately owned ereaders, up from 38 percent in 2008 (American Library Association [ALA], *State of America's Libraries Report*, April 2012).
- 28 percent of U.S. public libraries lend ereader and mobile devices for ebook consumption (ALA, April 2012).
- 94 percent of academic libraries offer ebooks (*Library Journal* and *School Library Journal* survey, November 2010).
- By 2020 80 percent of academic library budgets are expected to be allocated for electronic content (U.S. Dept. of Education, NCES, Academic Libraries Survey, 2011).
- Consumers who subscribe to an ebook subscription service like Kindle Unlimited, Scribd, and others spend an average of $58 per month on ebooks (Nielsen Books & Consumer Research, January 2015).

The Business of Children's & Young Adult eBooks

The largest and fastest growing segment of all epublishing is in the combined Children's and Young Adult genres, as evidenced by Figures 4.1 and 4.2. This segment includes reflowable and fixed-layout ebooks, as well as more interactive publications using interactive magazine, app, and HTML5 formats.

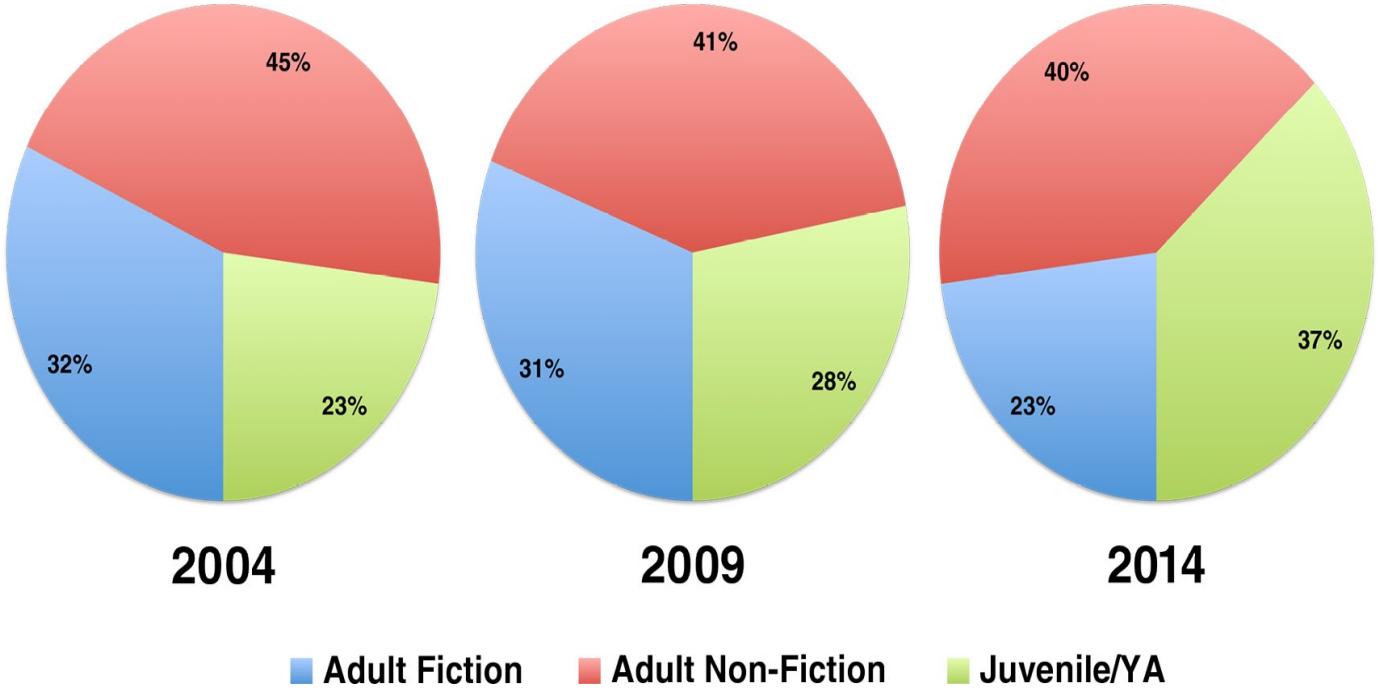


Figure 4.1: U.S. ebook marketshare by audience.

Children's/Young Adult is the fastest growing share of the United States ebook market of the last decade.

Source: Jonathan Nowell (Neilsen Book Pres.), January 15, 2015 presentation to Publishers Launch Conferences

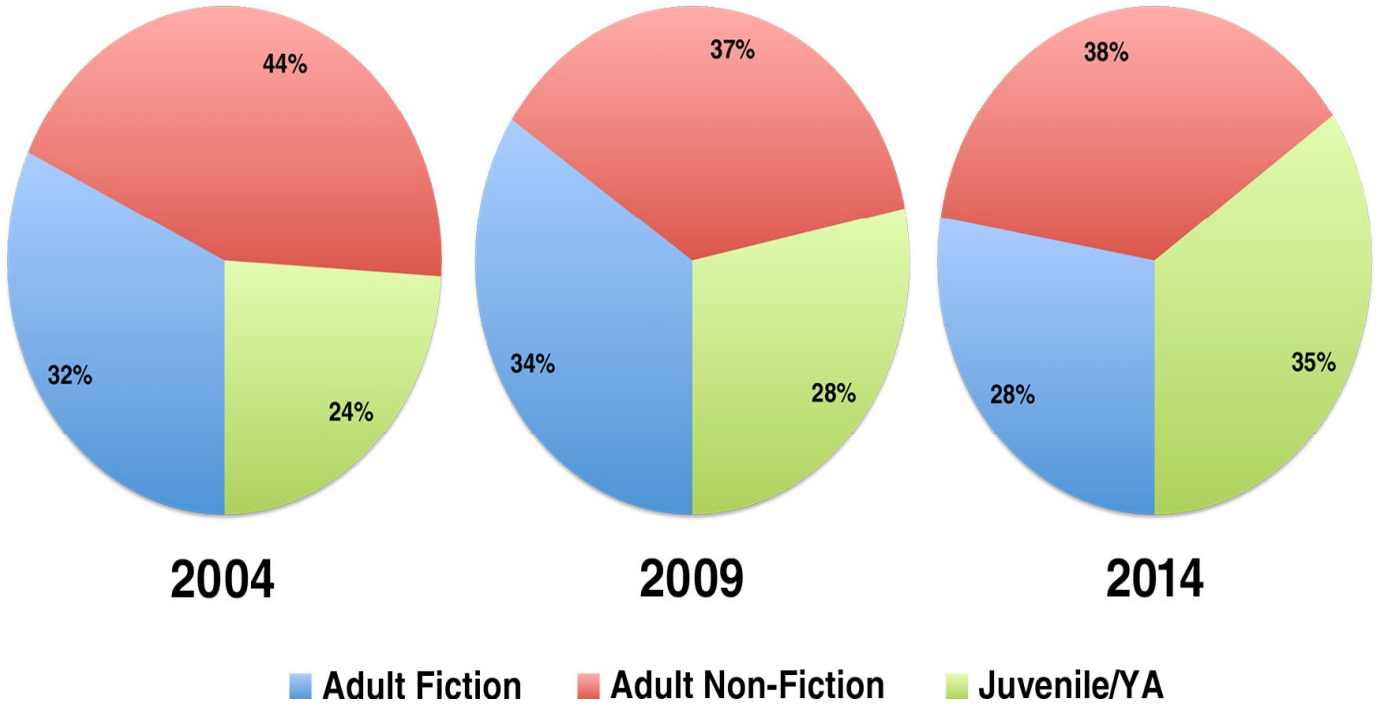


Figure 4.2: U.K. ebook marketshare by audience.

Children's/Young Adult is the fastest growing share of the British ebook market of the last decade.

Source: Jonathan Nowell (Neilsen Book Pres.), January 15, 2015 presentation to Publishers Launch Conferences

- 475 percent increase in children's and young adult market ebooks between January 2011 and January 2012 (AAP, March 2012).
- 71 percent of children ages 6–17 read books for fun (Scholastic *Kids & Family Reading Report*, January 2015).
- 93 percent of children 2–13 read ebooks at least once per week (January 2015 report from PlayCollective and Digital Book World *The ABCs of Kids and E-Reading: Volume 4–Devices*)
- 82 percent of children read ebooks on tablets at least once per week, up from 76 percent the year prior (*The ABCs of Kids and E-Reading: Volume 4–Devices*, January 2015).
- 64 percent of children read ebooks on handheld ereaders at least once per week (*The ABCs of Kids and E-Reading: Volume 4–Devices*, January 2015).
- 81 percent of preschool children are likely to read the same ebook multiple times (*The ABCs of Kids and E-Reading: Volume 4–Devices*, January 2015).
- $8.29 is the average price parents expect to pay for a children's ebook (*The ABCs of Kids and E-Reading: Volume 4–Devices*, January 2015).
- $13.00 is the average monthly fee parents will pay for an all-you-can-read children's ebook subscription that includes access to the latest titles (*The ABCs of Kids and E-Reading: Volume 4–Devices*, January 2015).

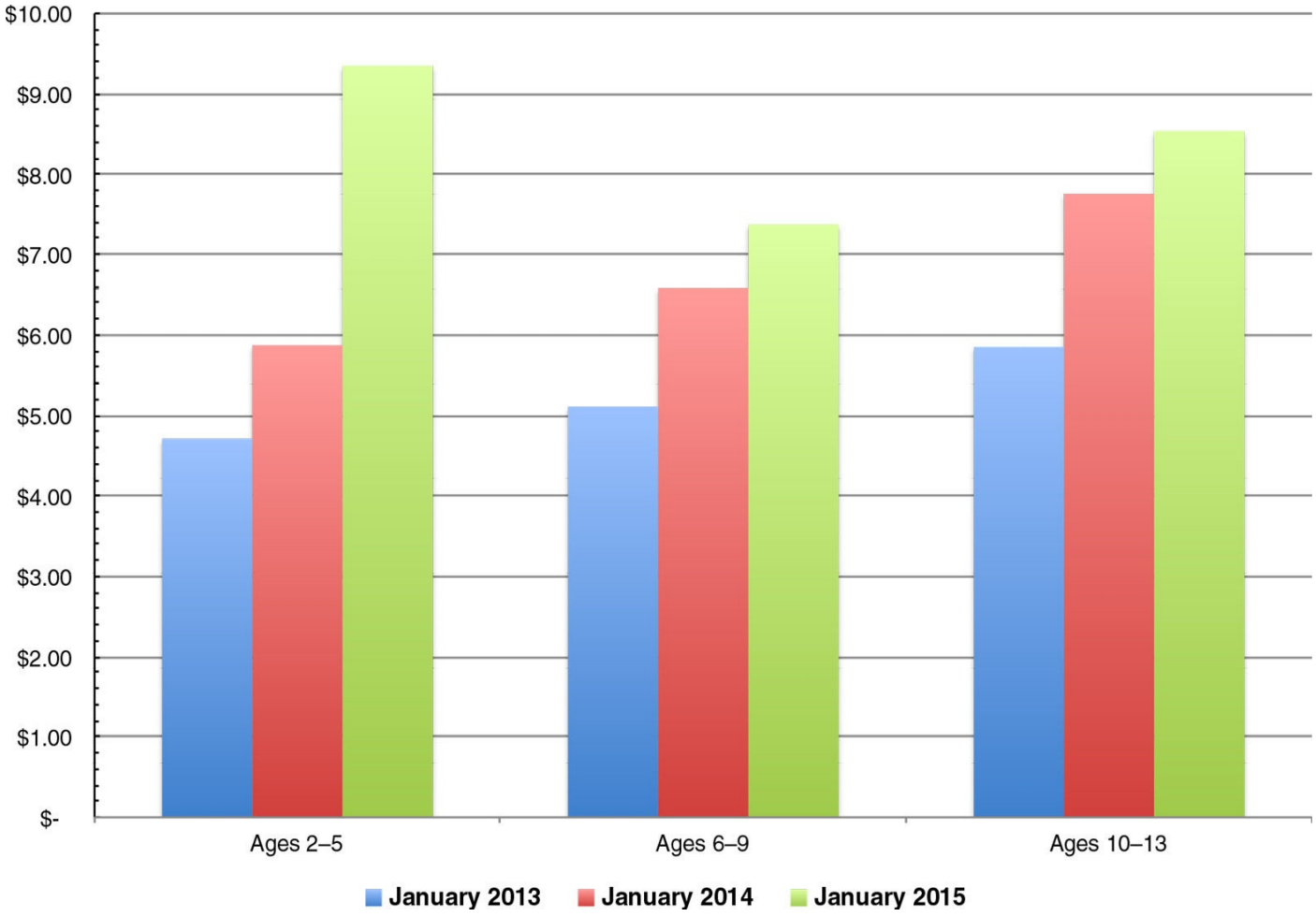


Figure 4.3: Parents expectation for average ebook purchase price

The average expected price of children's ebooks continues to rise year over year.

Source: January 2015 report from PlayCollective and Digital Book World The ABCs of Kids and E-Reading: Volume 4–Devices.

- Parents report no preference of format (ebook or printed) for their childrens' books except for reading with their children, in which case print books are preferred even at a slightly higher price than ebook editions (*The ABCs of Kids and E-Reading: Volume 4–Devices*, January 2015).

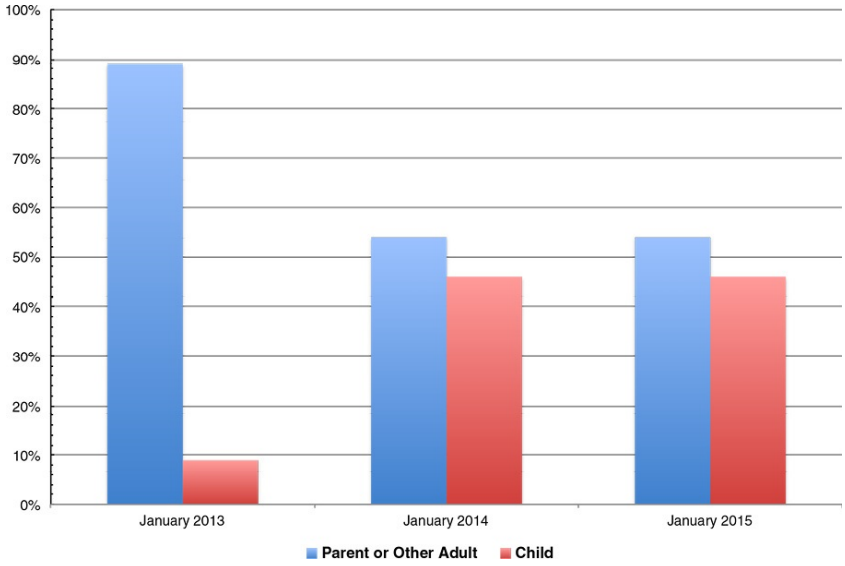


Figure 4.4: Who chooses children's ebook purchases

Parents are involved in children's choices of new ebooks but are no longer shopping alone.

Source: January 2015 report from PlayCollective and Digital Book World The ABCs of Kids and E-Reading: Volume 4–Devices.

- 35 percent of parents report a willingness to buy ebooks with enhanced features and greater child engagement (formats: fixed-layout, interactive magazine, HTML5, and custom app), up 27 percent from 2013 (*The ABCs of Kids and E-Reading: Volume 4–Devices*, January 2015).
- 66 percent of 6–8 year old children prefer to read print books at least some of the time (Scholastic *Kids & Family Reading Report*, January 2015).
- 56 percent of 9–11 year old children prefer to read print books at least some of the time (Scholastic *Kids & Family Reading Report*, January 2015).
- Kids 6–17 who participated in the October 2014 Scholastic *Kids & Family Reading Report* survey stated they like to read books that:
    - "Make me laugh," (70 percent).
    - "Let me use my imagination," (54 percent)
    - "Have characters I wish I could be like because they're smart, strong, or brave," (48 percent).
    - "Teach me something new," (43 percent).
    - "Have a mystery or a problem to solve," (41 percent).

Authors and Their Incomes

The data throughout this section is for anyone involved in book production and sale—publishing, sales, design, marketing, and so on—but of particular interest to authors and those who recognize author satisfaction as a crucial component in the ebb and flow of publishing, are the below statistics.

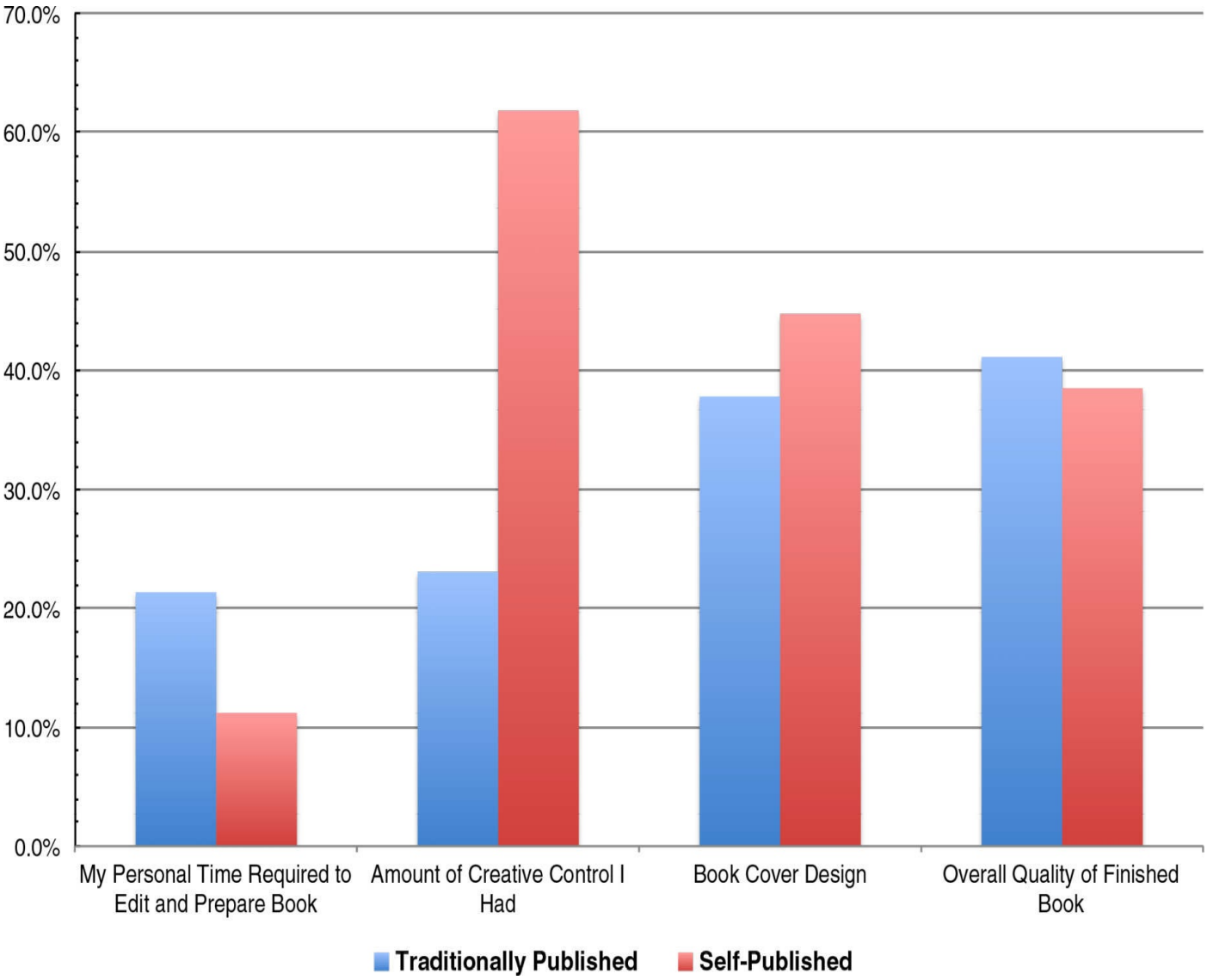


Figure 4.5: Author Satisfaction with Book Quality

Self-published authors are clearly more satisfied with their level of creative control, though traditional publishers do fin some satisfaction in the ability to pass along tasks like layout and ebook preparation to publishers' staff.

Source: Digital Book World Author Survey 2014

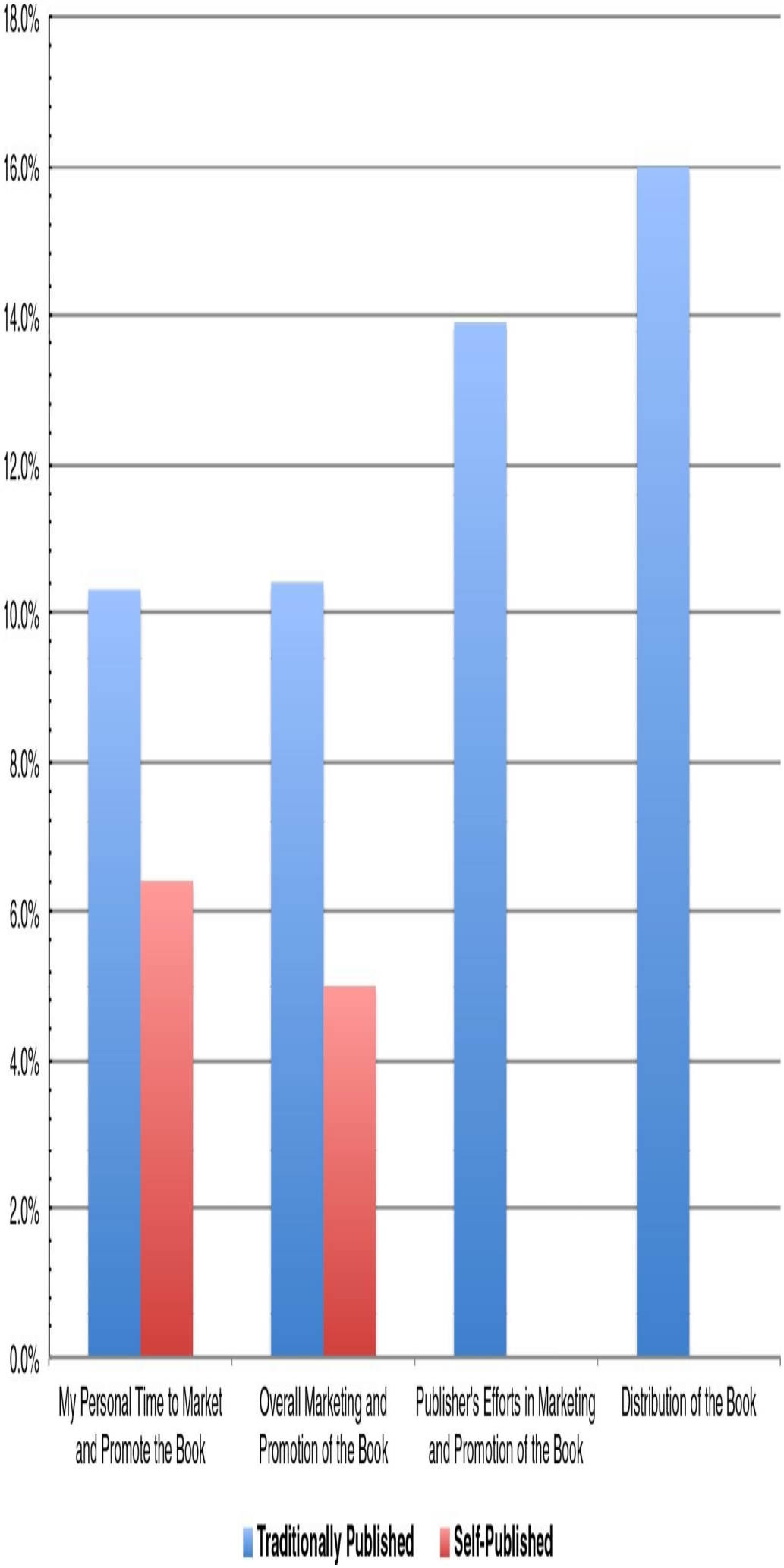

18.0%
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
My Personal Time to Market and Promote the Book
Overall Marketing and Promotion of the Book
Publisher's Efforts in Marketing and Promotion of the Book
Distribution of the Book
Traditionally Published
Self-Published

Figure 4.6: Author Satisfaction with Book Marketing and Promotion.

No one is happy with the current levels of book marketing and promotion, whether done by the author or the publisher.

Source: Digital Book World Author Survey 2014

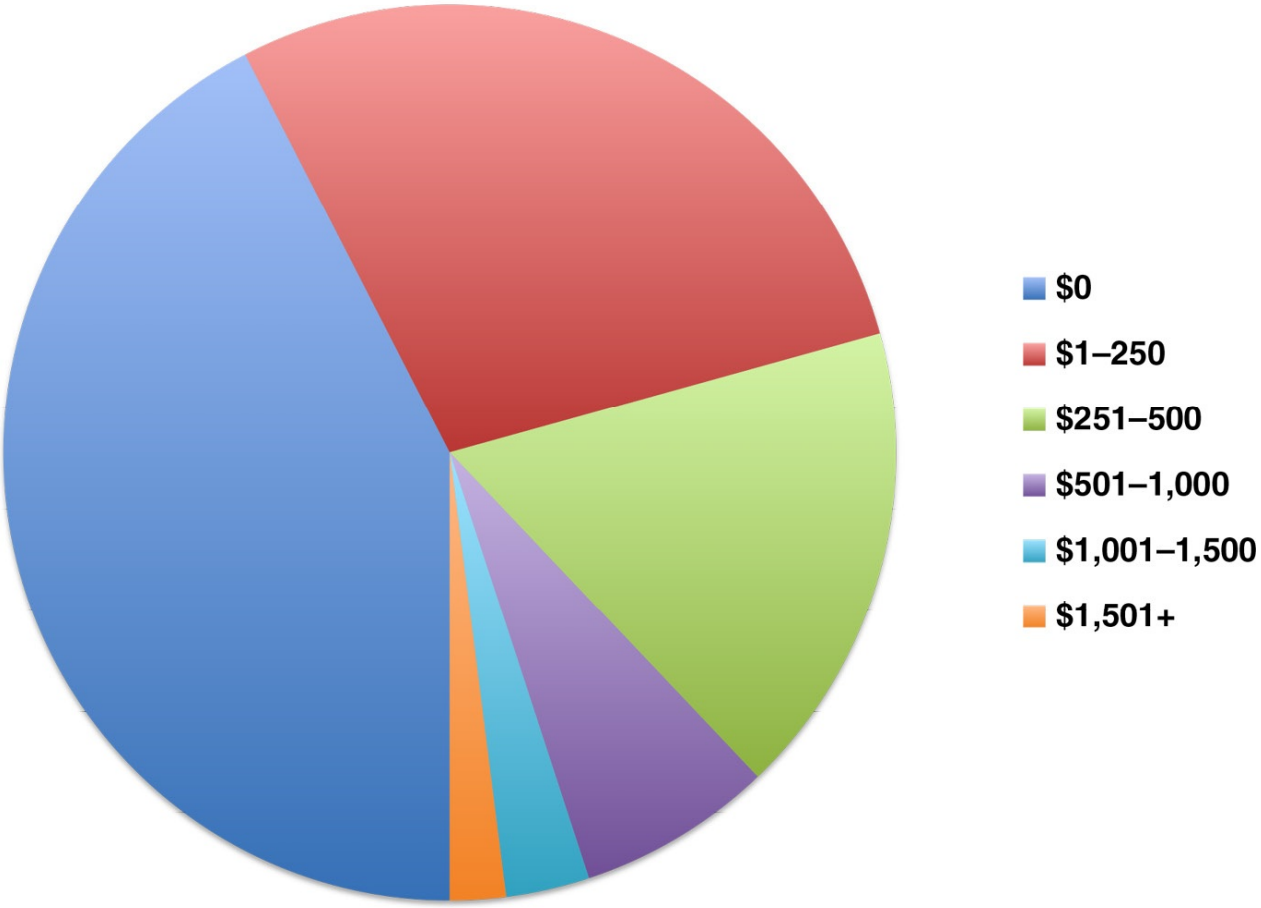


Figure 4.7: Amount Self-Publishers Spent on Book Cover Design

Nearly half (42 percent) of self-publishers spent nothing on their book cover designs, often doing it themselves. The other 58 percent hired out, spending mostly less than $250.

Source: 2013 eBook SelfPublisher Survey, October 2013.

Figure 4.8: Who Edited Self-Publishers' eBooks

More than one-third of self-publishers unfortunately chose to edit their own books while 46 percent hired professional editors and the remaining 20 percent asked friends to edit.

Source: 2013 eBook SelfPublisher Survey, October 2013.

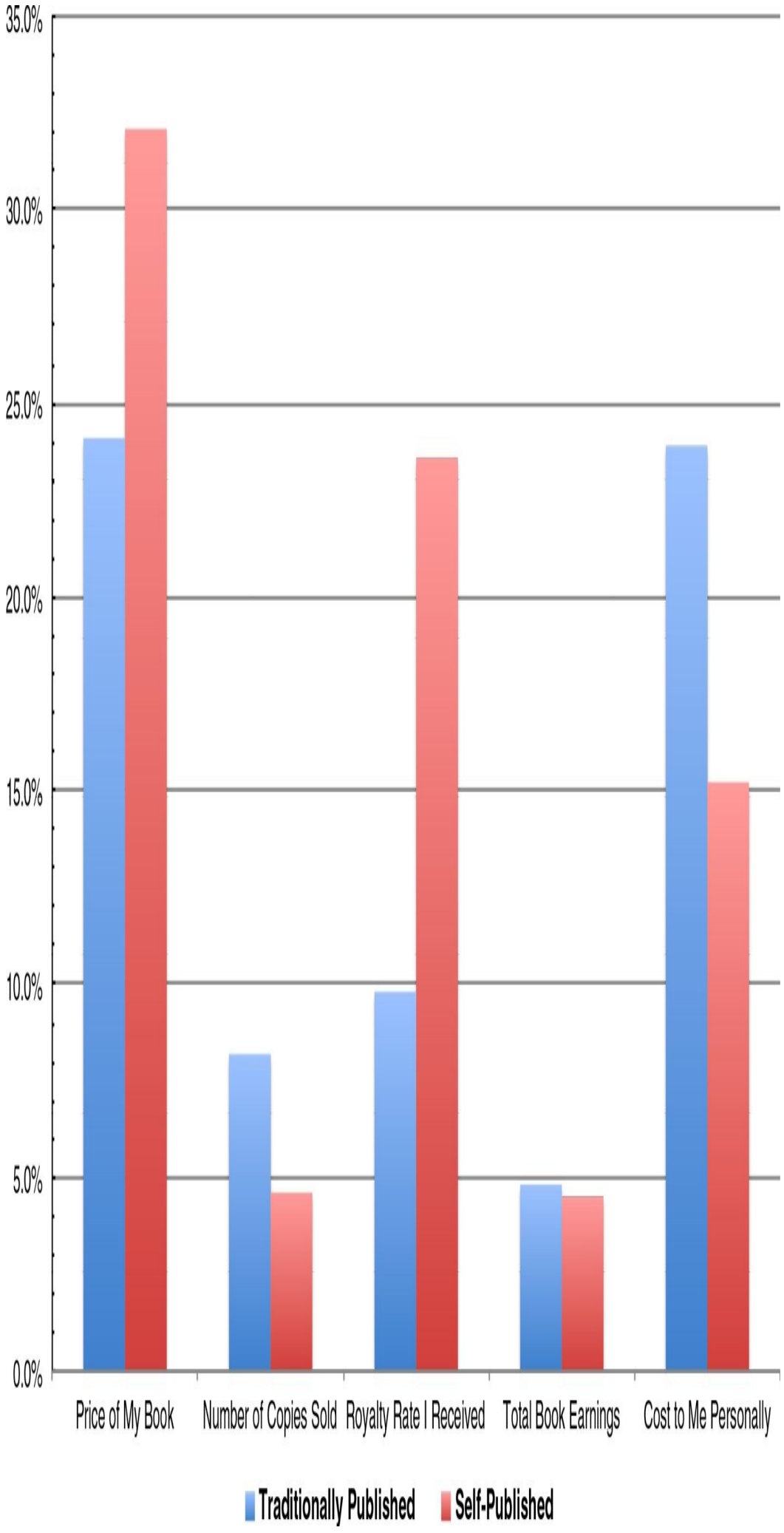

35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
Price of My Book
Number of Copies Sold
Royalty Rate I Received
Total Book Earnings
Cost to Me Personally
Traditionally Published
Self-Published

Figure 4.9: Author Satisfaction with Book Financials.

With only single digits of authors reporting satisfied, neither self-published nor traditionally published authors are happy with book sales or earnings. Self-published authors are much happier with the percentage of their royalties and with the prices set for their books than traditional authors. Naturally traditionally-published authors, who pass all expenses for editorial, creative, and distribution to the publisher, feel a greater satisfaction than self-publishers who must incur such costs directly.

Source: Digital Book World Author Survey 2014

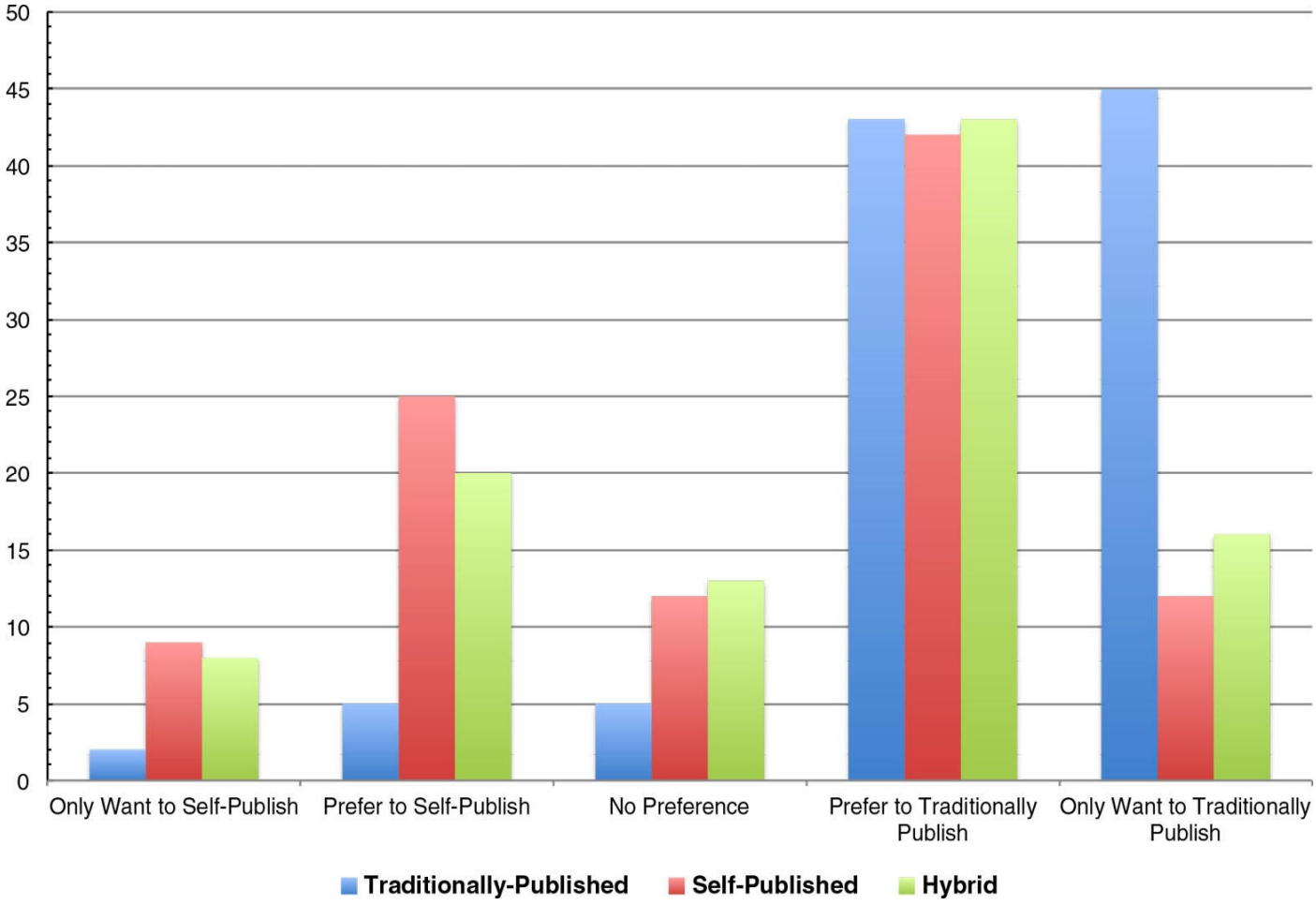


Figure 4.10: Author Preferences for Publishing Next Book

Comparing the preferences of authors who have only published through publishing houses (Traditionally-Published), Self-Published authors, and Hybrid, those authors who have experienced both traditional and self-publishing.

Source: Digital Book World Author Survey 2014

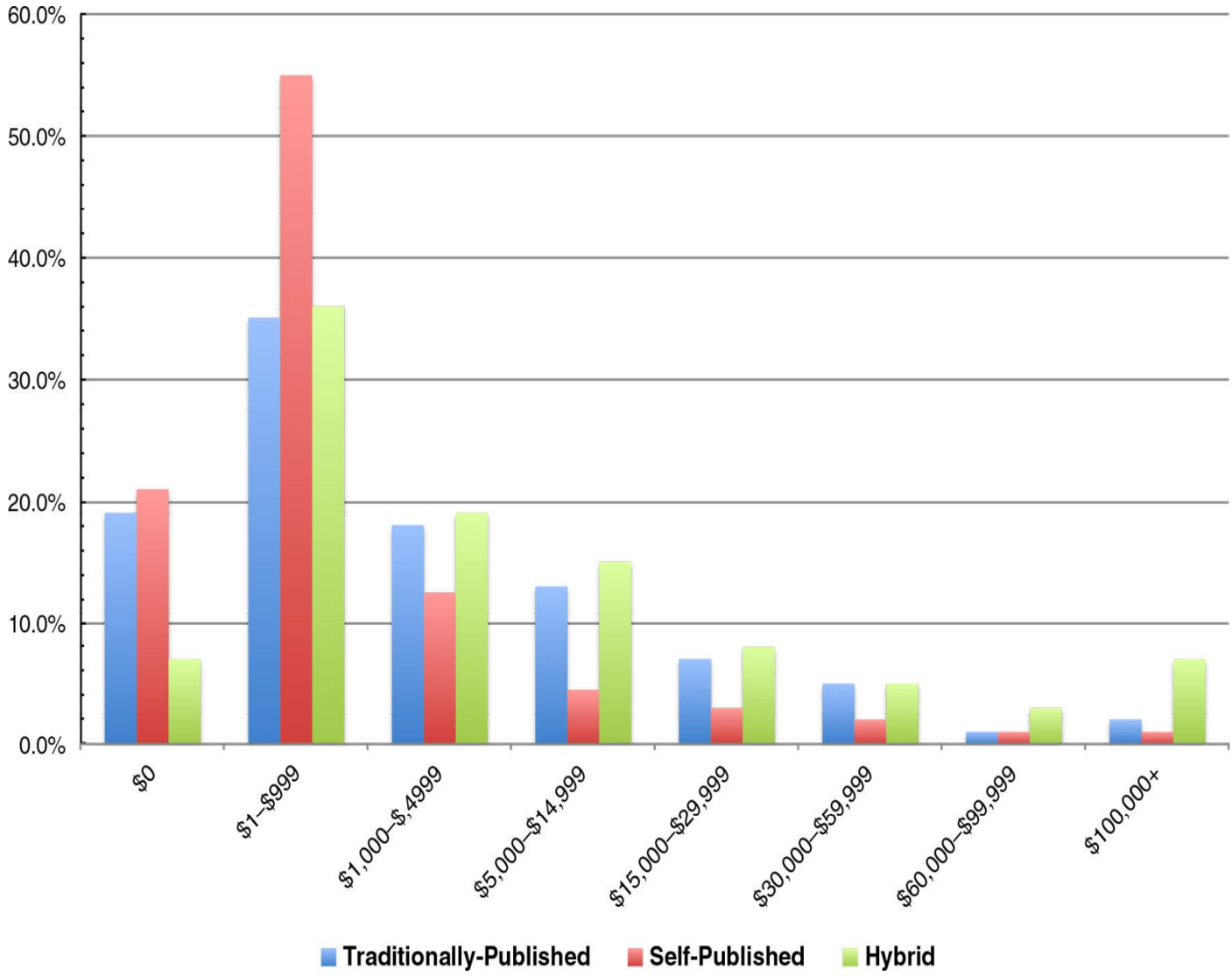


Figure 4.11: Annual Writing Income by Author Type

Although some authors—including traditionally-published authors with print books—make less than $1 per year, the vast majority of all three author types earn something annually from their books. More than half of self-publishers earn less than $1,000 while one-third of traditionally-published and one-third of hybrid (authors with both self-published and traditionally-published books) also fall into that income segment. After the first thousand dollars hybrid authors' annual incomes begin to edge ahead of traditionally-published authors'. Indeed, there are three times as many hybrid as traditionally-published authors earning more than $100,000 annually from their books. Even a small percentage of self-published authors earn six-digits from their annual sales.

Source: Digital Book World Author Survey 2014

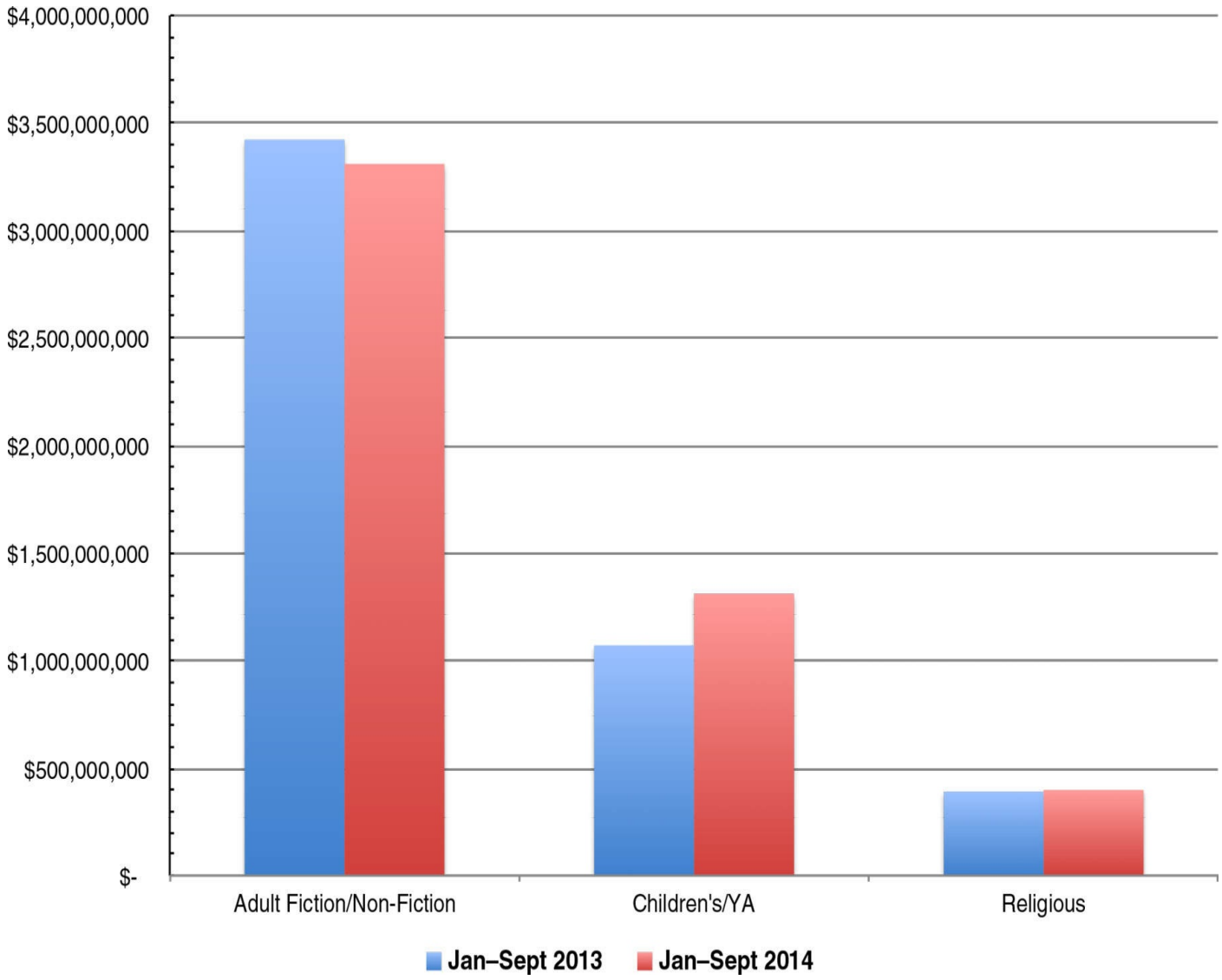


Figure 4.12: Total Trade Net Revenue by Categories for All Formats (eBook, Hardcover, and Paperback)

This chart shows the most complete snapshot of the net revenue for book publishing in the U.S. as a whole, including books sold as ebooks, hardcovers, and paperbacks. For those who don't want to count the zeroes, the top figures are in the billions of dollars.

Source: Information Today, January 13, 2015

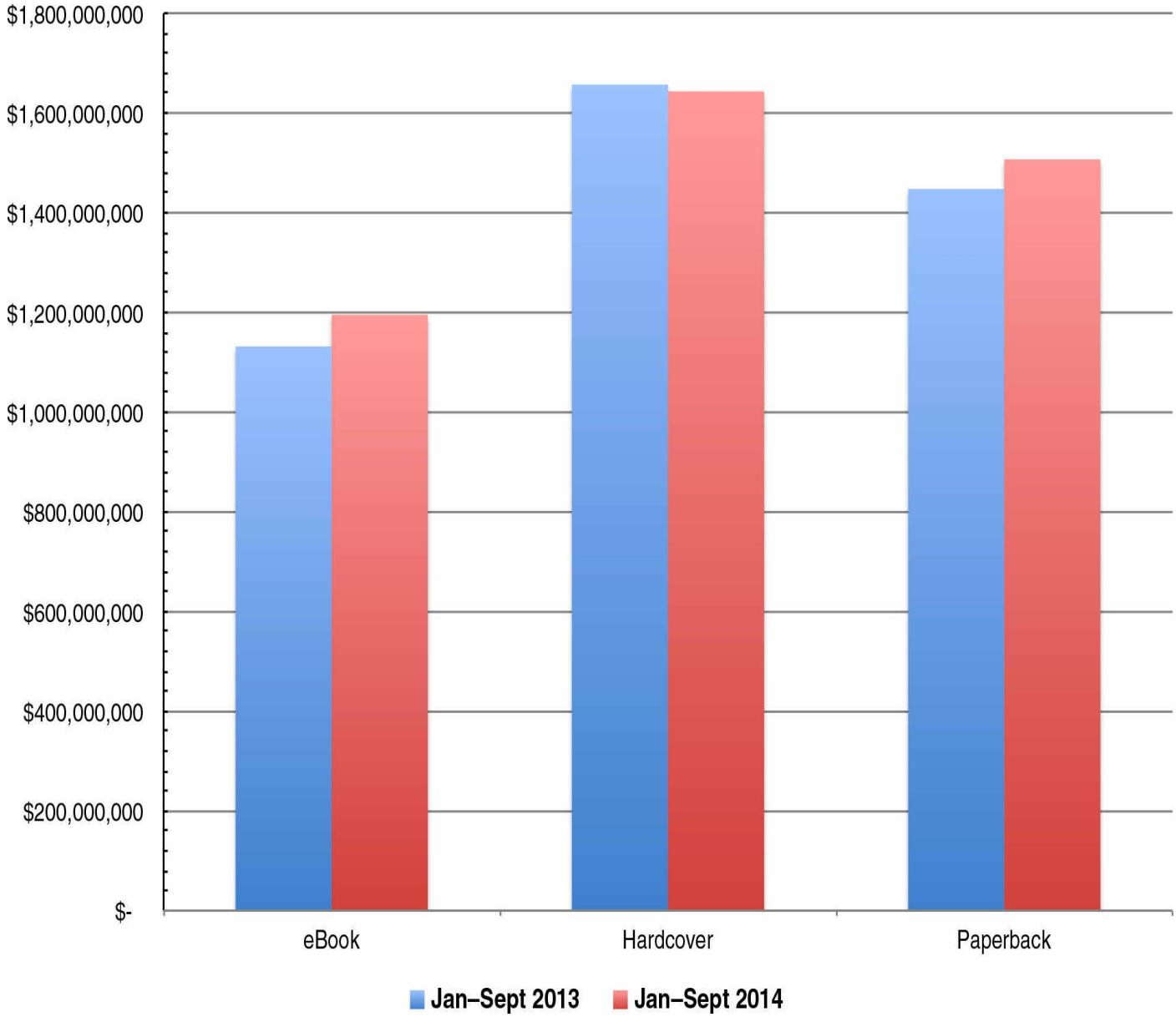


Figure 4.13: Total Trade Net Revenue by Format

Here the sales data is broken down by format, showing how many dollars (again, in the billions) are spent on ebooks versus hardcover and paperback for the same periods. The big takeaways from this chart are the amount of money being spent on ebooks—$1.1 billion in quarters 1–3 2013 and $1.2 billion during the same period in 2014—and that ebooks can and do coexist with healthy print book sales. Digital publishing is not the print killer so many pundits desperately insist that it is.

Source: Information Today, January 13, 2015

The above sets of data relate primarily to U.S. authors. Here are a few facts about their counterparts across the Atlantic:

- In 2005 40 percent of U.K. authors earned their income solely from writing though that percentage dropped to 11.5 percent by 2013 (Authors' Licensing and Collecting Society [ALCS] 2014 report *What Are Words Worth Now?*).
- 70 percent of U.K. authors who published traditionally and who

exercised the rights reversion clause with their publishers went on to earn money from their works (ALCS report *What Are Words Worth Now?*, July 2014).

- U.K. writers who self-publish typically earn a 40 percent return on their investment (ALCS report *What Are Words Worth Now?*, July 2014).
- 85 percent of U.K. self-publishers said they would self-publish again (ALCS report *What Are Words Worth Now?*, July 2014).

The Missing 30 Percent of the Data

According to Author Earnings Report, 30 percent of ebooks purchased in the U.S. do not use ISBN numbers and thus can't be counted by official market surveys and reports from Bowker, AAP, BISG, Nielsen/BookScan, and others. Consequently, those agencies official reports—the ones most publicized in the media—are statistically incomplete. Is this correct? It would seem so. None of the major ebookstores require an ISBN number for self-publishing; that includes Amazon Kindle, Apple iBooks, Kobo, B&N NOOK, and Google Play Books. And, without the requirement, many self-publishers are saving themselves the expense of buying an ISBN. Because the leading agencies like Bowker (which is the ISBN agency), BookScan, and the rest only count sales of ebooks *by* ISBN, sales of those books without an ISBN—as much as 30 percent of all ebooks—go uncounted.

Author Earnings Report seeks to provide more accurate data, rectifying the non-ISBN accounting gap, but analyzing data directly from ebookstores' bestseller lists. The following findings are based on that data.

- 20 percent of Amazon's overall Top 10 bestselling ebooks do not have ISBN numbers (*Author Earnings Report*, January 2015).
- 16 percent of consumer dollars were spent on ebooks without ISBN numbers (*Author Earnings Report*, January 2015).
- 28 percent of ebook authors' earnings came from ebooks without ISBN numbers (*Author Earnings Report*, January 2015).
- One-third of Amazon.com's paid ebook sales are self-published ebooks (*Author Earnings Report*, January 2015).
- 20 percent of all consumer dollars spent on ebooks on Amazon.com are spent on self-published ebooks (*Author Earnings Report*, January 2015).
- 87 percent of ebooks published in 2014 by self-publishers did not have

ISBNs (*Author Earnings Report*, January 2015).

- When sales figures are calculated by number of ISBN-equipped units sold, only 10 percent of all ebook sales and 7 percent of gross consumer ebook dollars appear to be generated by self-published ebooks, thus dramatically undervaluing overall self-published sales and dollars spent (*Author Earnings Report*, January 2015).
- 40 percent of all ebook author earnings go to self-published ebook authors (*Author Earnings Report*, January 2015).
- 35 percent is the total earnings of all ebooks sold by the Big Five publishers on Amazon (*Author Earnings Report*, January 2015).

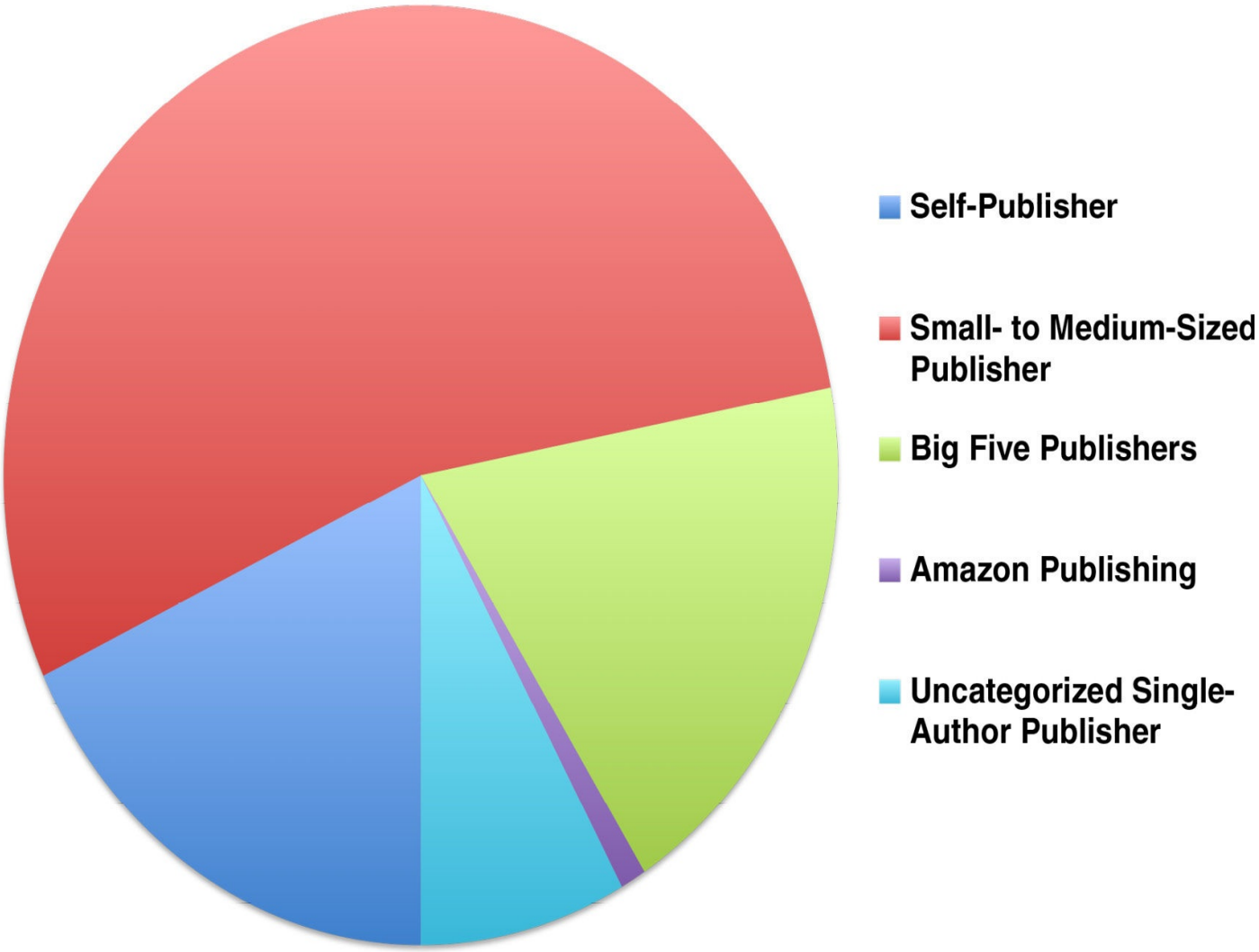


Figure 4.14: Share of Amazon's Book Bestseller Lists by Publisher Type

This chart shows the shares by publisher type of Amazon's 120,000 bestselling fiction and non-fiction book titles, books that account for approximately 50 percent of Amazon's entire ebook revenue. According to the report more than half of Amazon's bestselling books are published by small and medium publishers, with the Big Five and self-publishers virtually tied with 19 and 18 percent share of sales respectively.

Source: Author Earnings Report, January 2015

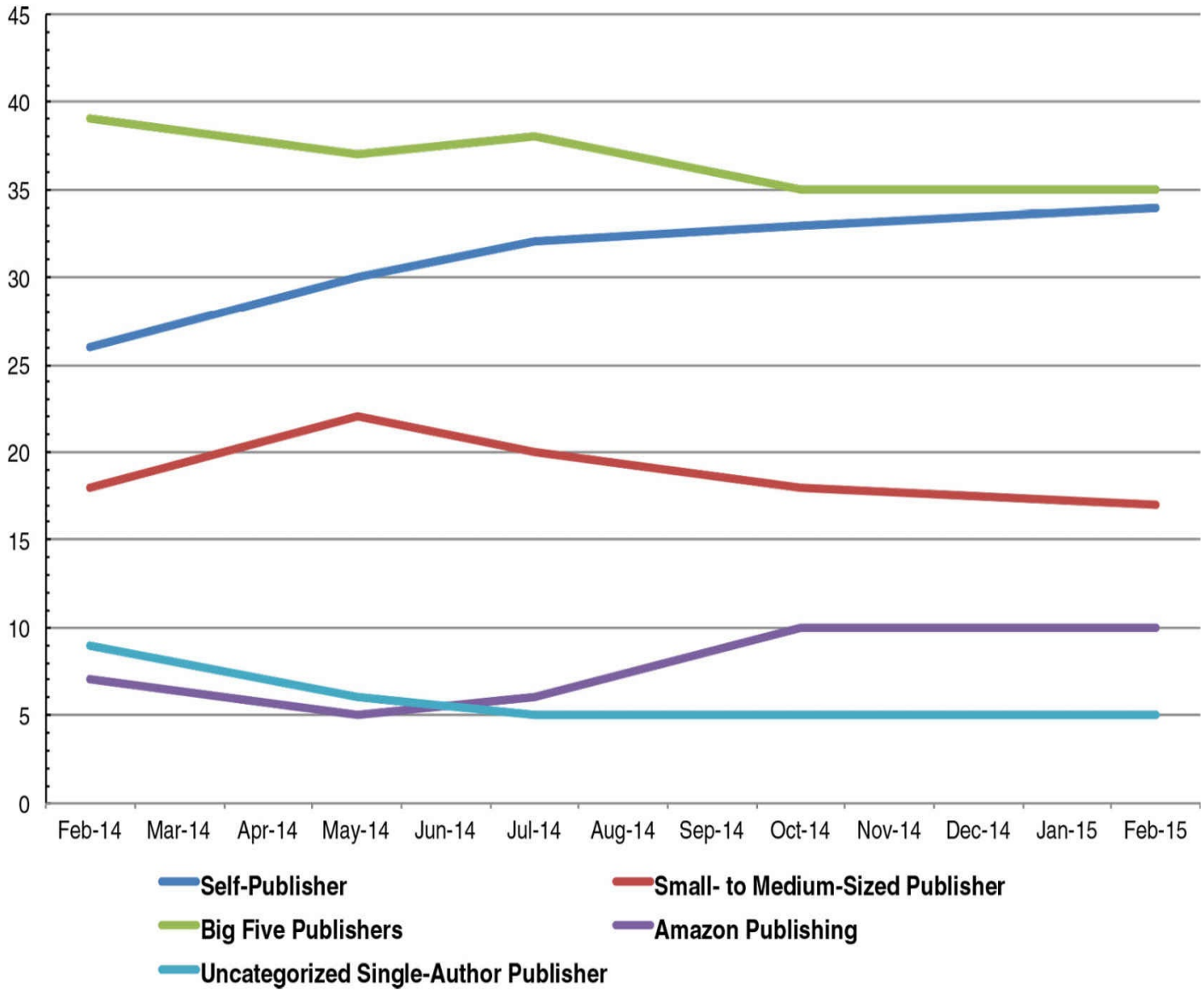


Figure 4.15: 12-Month Trends in Market Share of Amazon Bestselling eBook Sales by Publisher Type

Looking at the 12-month trends in market share from February 2014 through January 2015, self-publishing is steadily increasing its market share while other publisher types lose market share. Amazon's own publishing system sharply rise in mid-2014, seemingly in correspondence with the plateauing of market share from Uncategorized Single-Author Publishers. This is most likely a direct correlation owing to Amazon's push for Amazon Direct Publishing and other programs.

Source: Author Earnings Report, January 2015

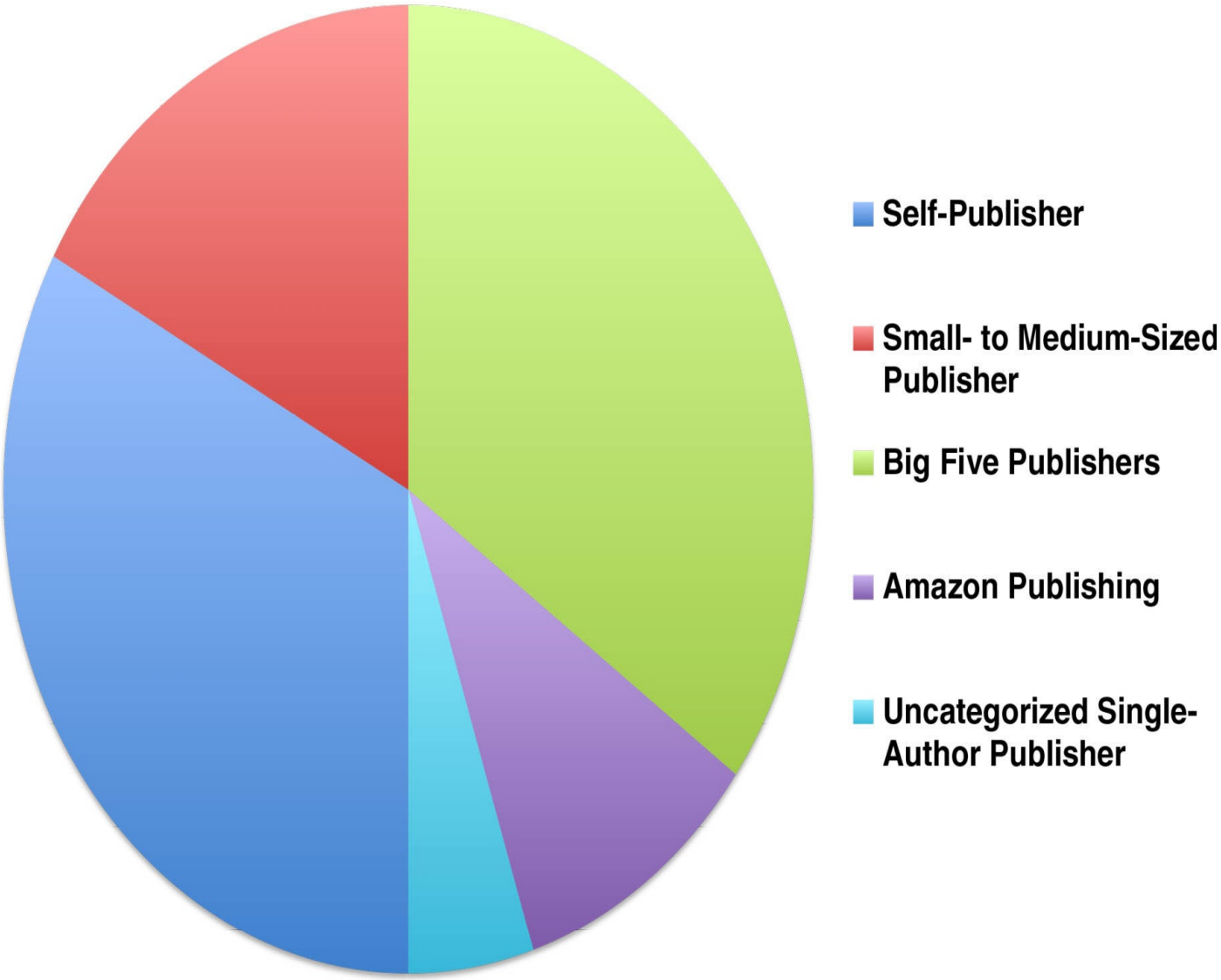


Figure 4.16: Percentage of Amazon's Daily Bestselling eBook Sales by Publisher Type

Looking at the daily sales of ebooks on the Amazon bestseller lists it's interesting to note that self-published ebook sales are again nearly tied with sales of ebooks published by the Big Five, but now those two dominate the daily sales. This is disproportionate to the number of such ebooks occupying the bestseller lists.

Source: Author Earnings Report, January 2015

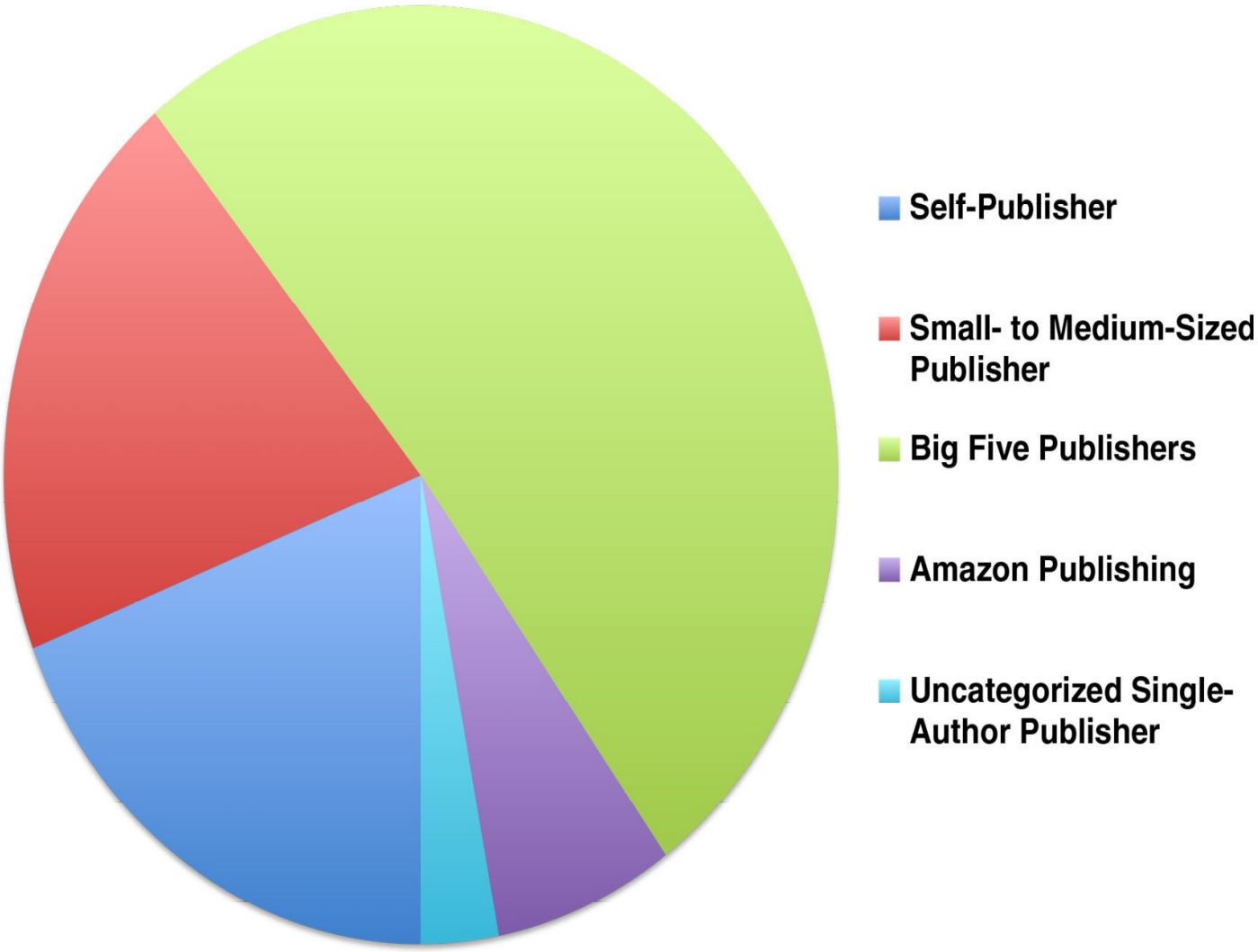


Figure 4.17: Daily Gross Amount of Sales from eBooks on Amazon's Bestseller Lists by Publisher Type

More than half of daily gross sales dollars go to the Big Five while books from small- to medium-sized publishers and self-publishers also earn healthy shares.

Source: Author Earnings Report, January 2015

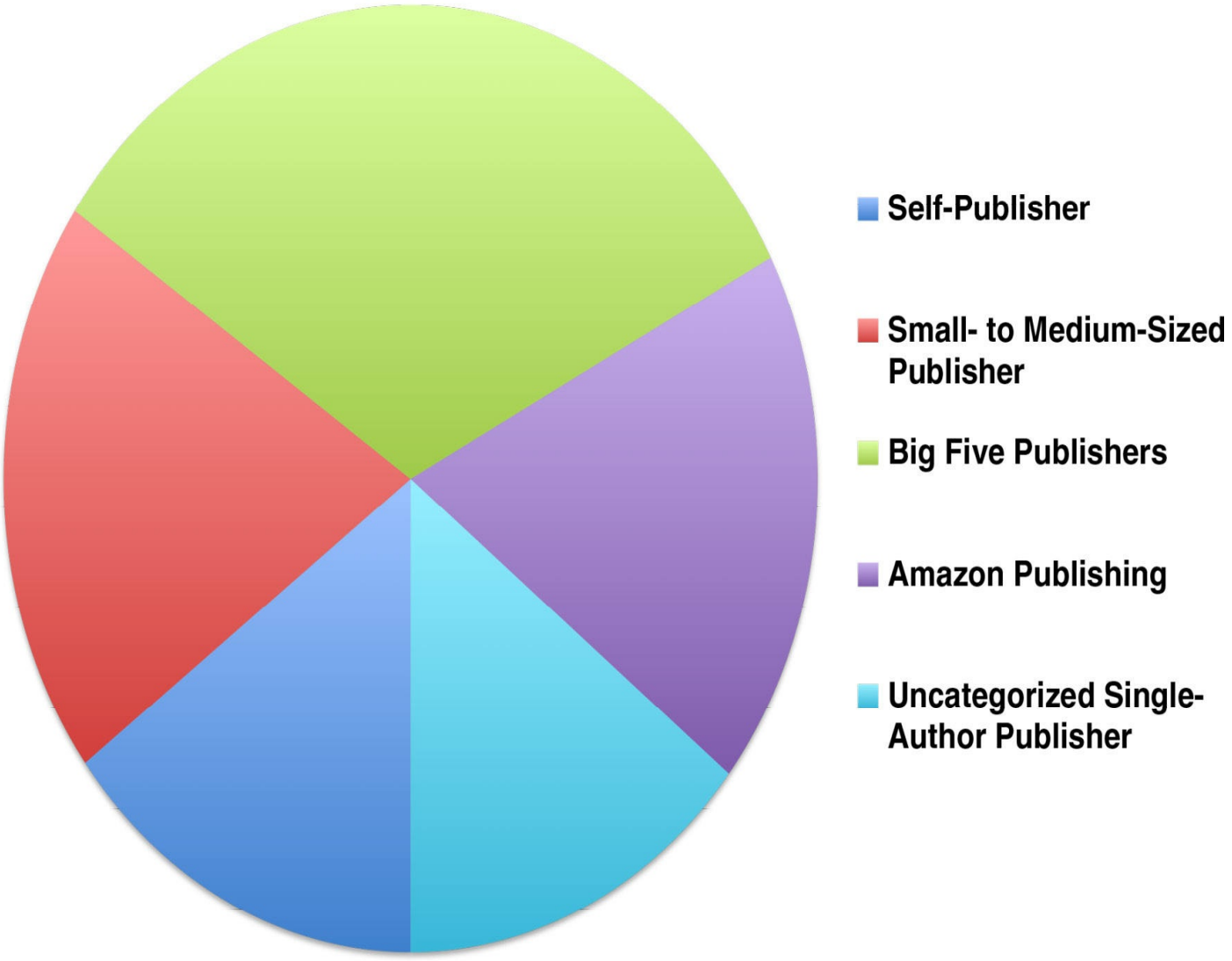


Figure 4.18: Average Book Price of Top 7,000 Amazon Genre eBook Bestsellers

This chart shows the average unit price of ebooks for the 7,000 bestselling genre (all fiction) ebooks listed on Amazon. Armed with the average ebook price, it's now possible to fully interpret the meanings inherent in daily gross and author revenue shares.

Source: Author Earnings Amazon 7K Report, February 2014

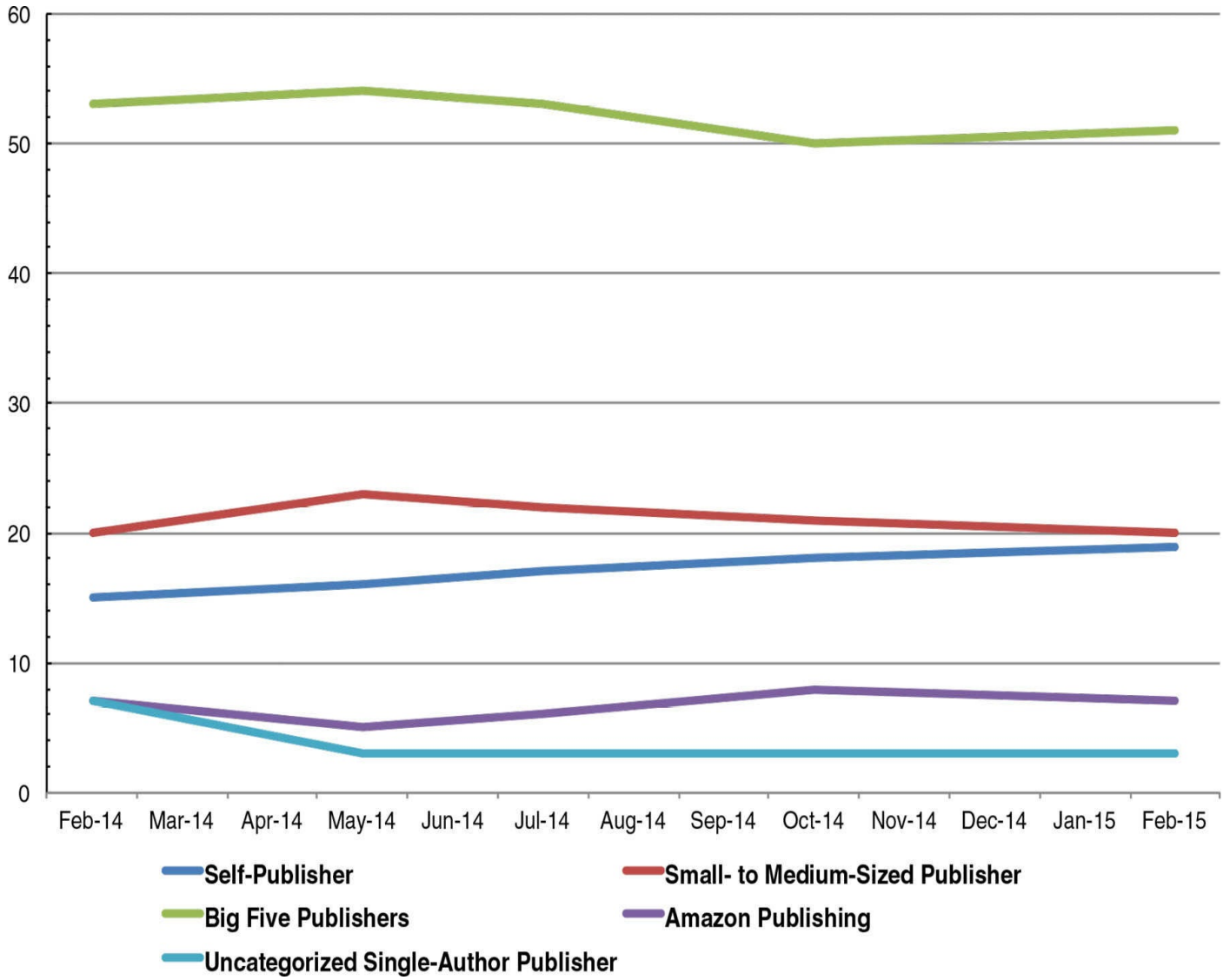


Figure 4.19: 12-Month Trends in Daily Gross Sales of Amazon Bestselling eBooks by Publisher Type

Gross sales of bestselling ebooks consistent net the Big Five publishers the biggest share of the pie. Self-published gross sales dollars maintain a steady, gradual rise through the year from February 2014 through January 2015, seemingly cannibalizing sales by other publisher types.

Source: Author Earnings Report, January 2015

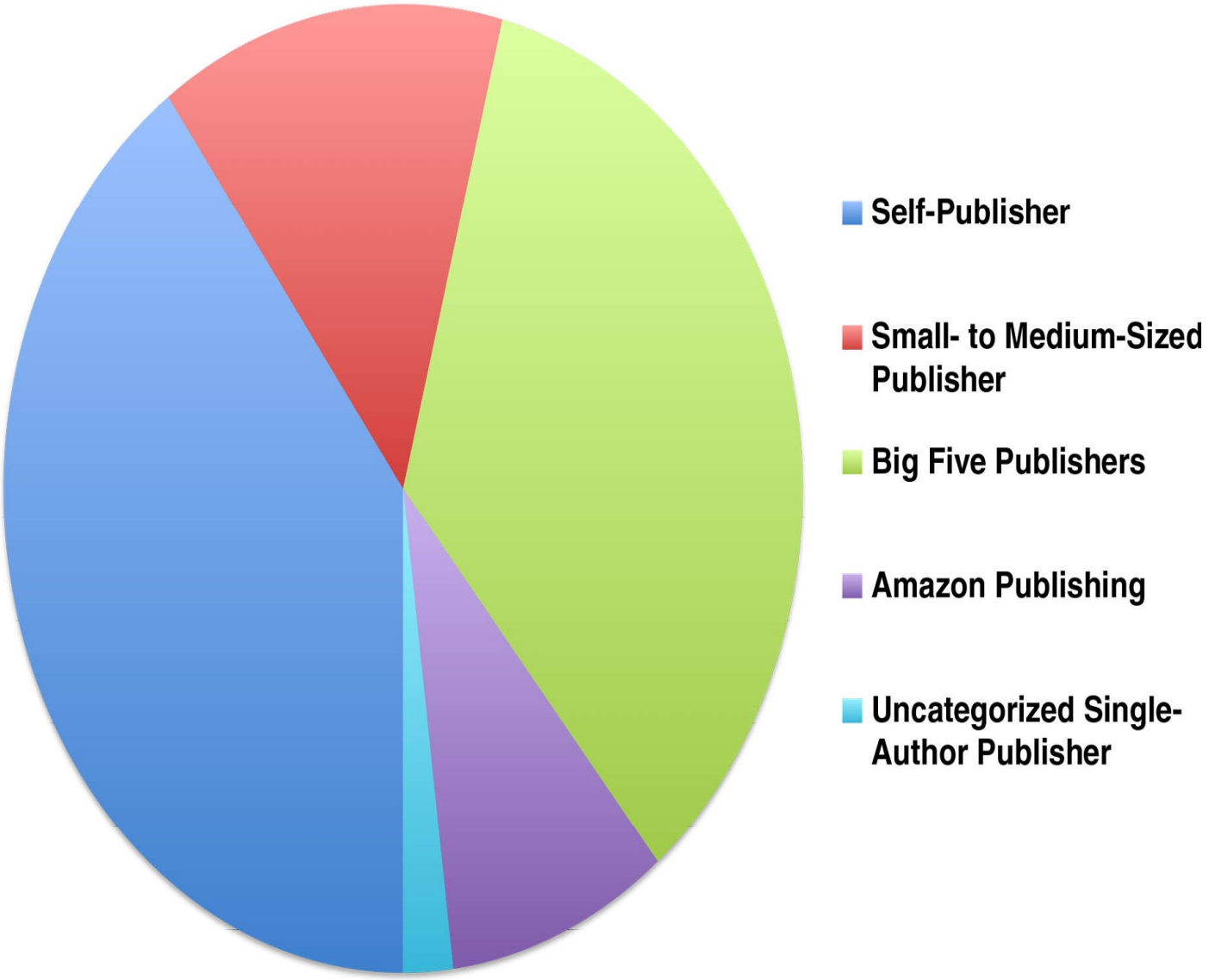


Figure 4.20: Daily Percentage of Revenue to Authors from Sales of eBooks on Amazon's Bestseller Lists by Publisher Type

Compare the daily gross amount of sales per publisher type to the percentage of gross dollars earned by authors.

Source: Author Earnings Report, January 2015

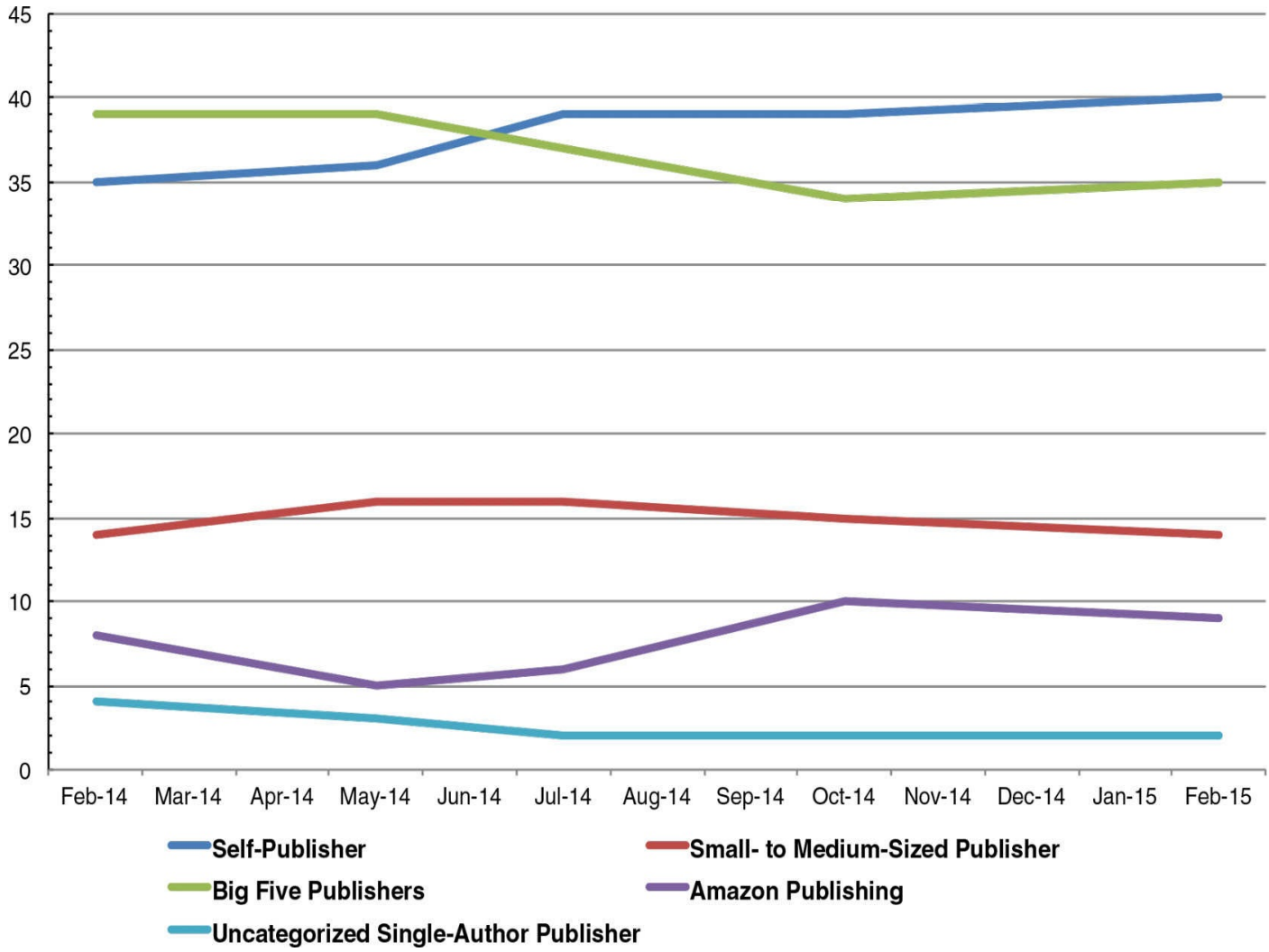


Figure 4.21: 12-Month Trends in Daily Percentage of Revenue to Authors from Sales of eBooks on Amazon's Bestseller Lists by Publisher Type

Overall author earnings by publisher type closely follow the gross sales percentages by publisher type except for self-published works. Naturally sales of self-published books returns the highest percentage of revenue to the author directly but this trend goes beyond that mere fact to point at authors earnings rising above simple gross sales adjusted to self-publishers. Whereas the Big Five publishers maintain a large selection of higher-priced books (typically in non-fiction) in addition to the average $7.15 per copy fiction genre books, most self-publishers' sales average $3.20 per unit range. Thus, for self-published authors to own such a large percentage of daily revenue, they must not only keep a higher portion of unit sales but also sell a large quantity of units, which is born out by daily unit sales shares (see Figure 4.16: Percentage of Amazon's Daily Bestselling eBook Sales by Publisher Type.).

Source: Author Earnings Report, January 2015

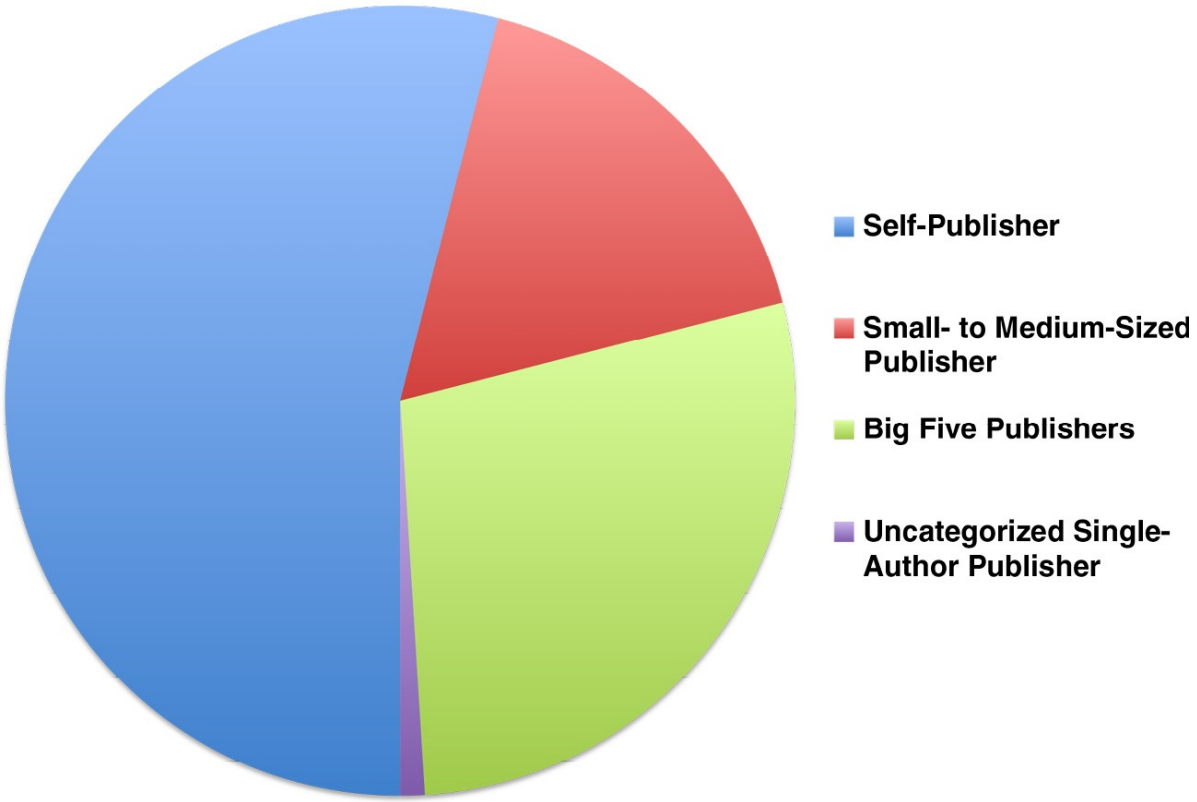


Figure 4.22: Share of Barnes & Noble's (NOOK) Genre (Fiction) eBook Bestseller Lists by Publisher Type

Analysis of publisher type share of Barnes & Noble's bestseller lists differs greatly from similar data taken from Amazon. Whereas Small- to Medium-Sized Publishers dominate the Amazon bestseller lists with 54 percent of the 5,00 titles on the list, that group is in third place on B&N's bestseller lists. Self-published books compose more than half of the number of titles.

Source: Author Earnings Barnes & Noble Report, July 23, 2014

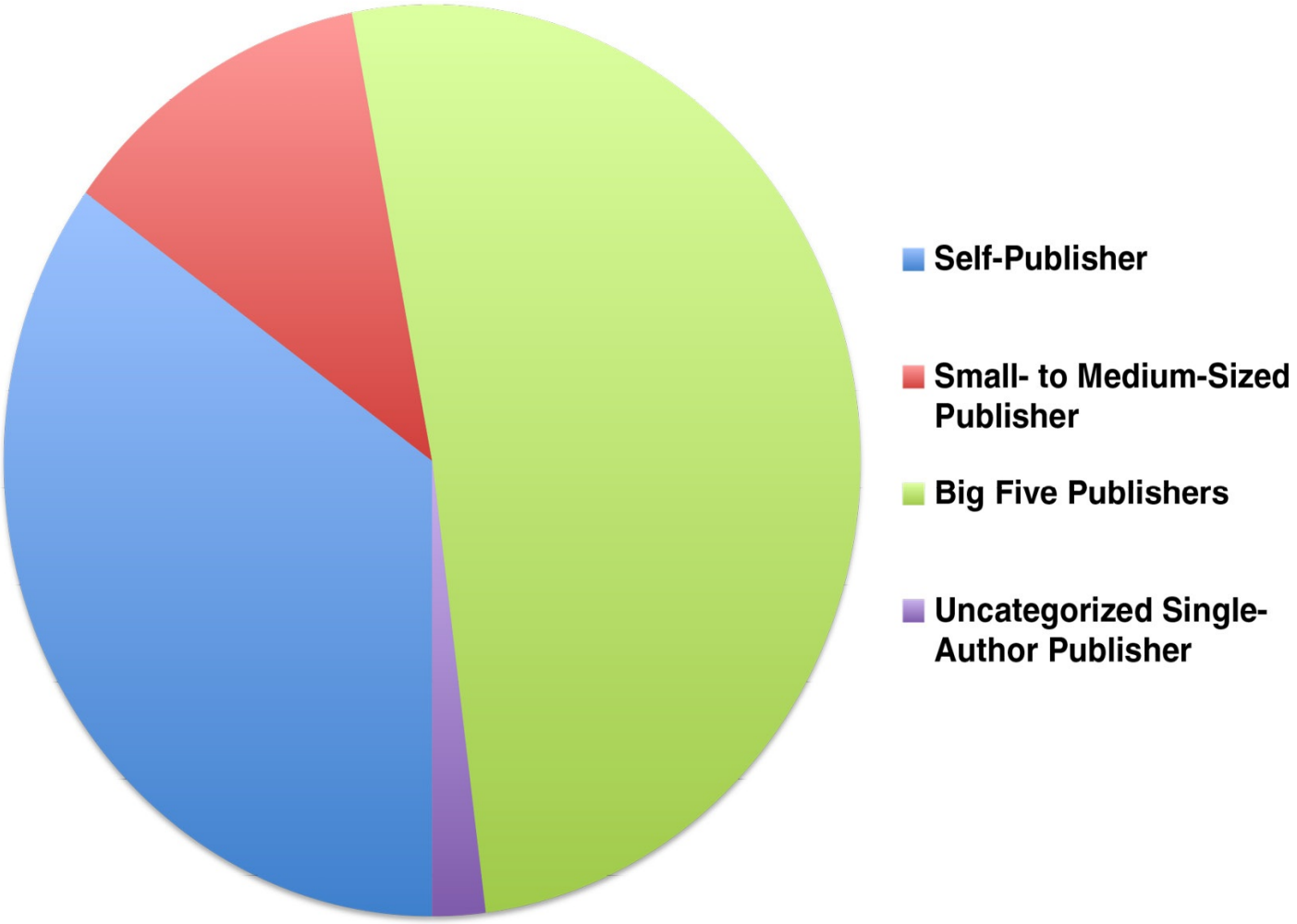


Figure 4.23: Daily Unit Sales Share of Barnes & Noble's Genre eBook Bestsellers by Publisher Type

Of the 5,000 bestseller titles on the list, the Big Five publishers account for 51 percent of the daily total unit sales. This isn't surprising. Self-published titles take a healthy second place with 35 percent of all daily bestselling ebook sales.

Source: Author Earnings Barnes & Noble Report, July 23, 2014

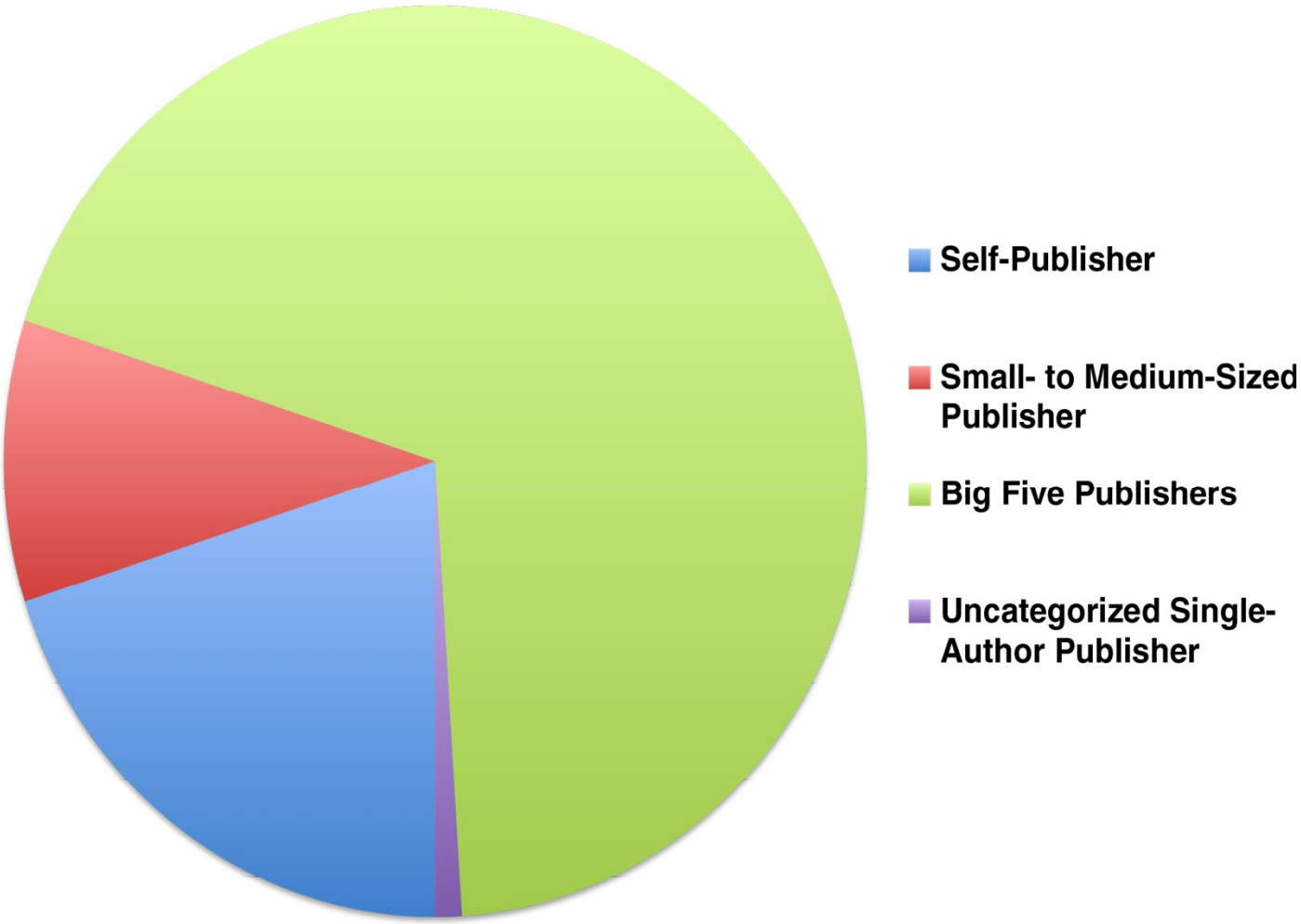


Figure 4.24: Daily Gross Amount of Sales from eBooks on B&N's Genre eBook Bestseller Lists by Publisher Typ

Getting into the financials, we can see that, of all dollars spent on bestselling ebooks, the Big Five get slightly more tha two-thirds (69 percent) , which is apt given that the Big Five own such a big share of daily sales and that their average unit price is approximately twice the average unit price set by Self-Publishers and Small- to Medium-Sized Publishers.

Source: Author Earnings Barnes & Noble Report, July 23, 2014

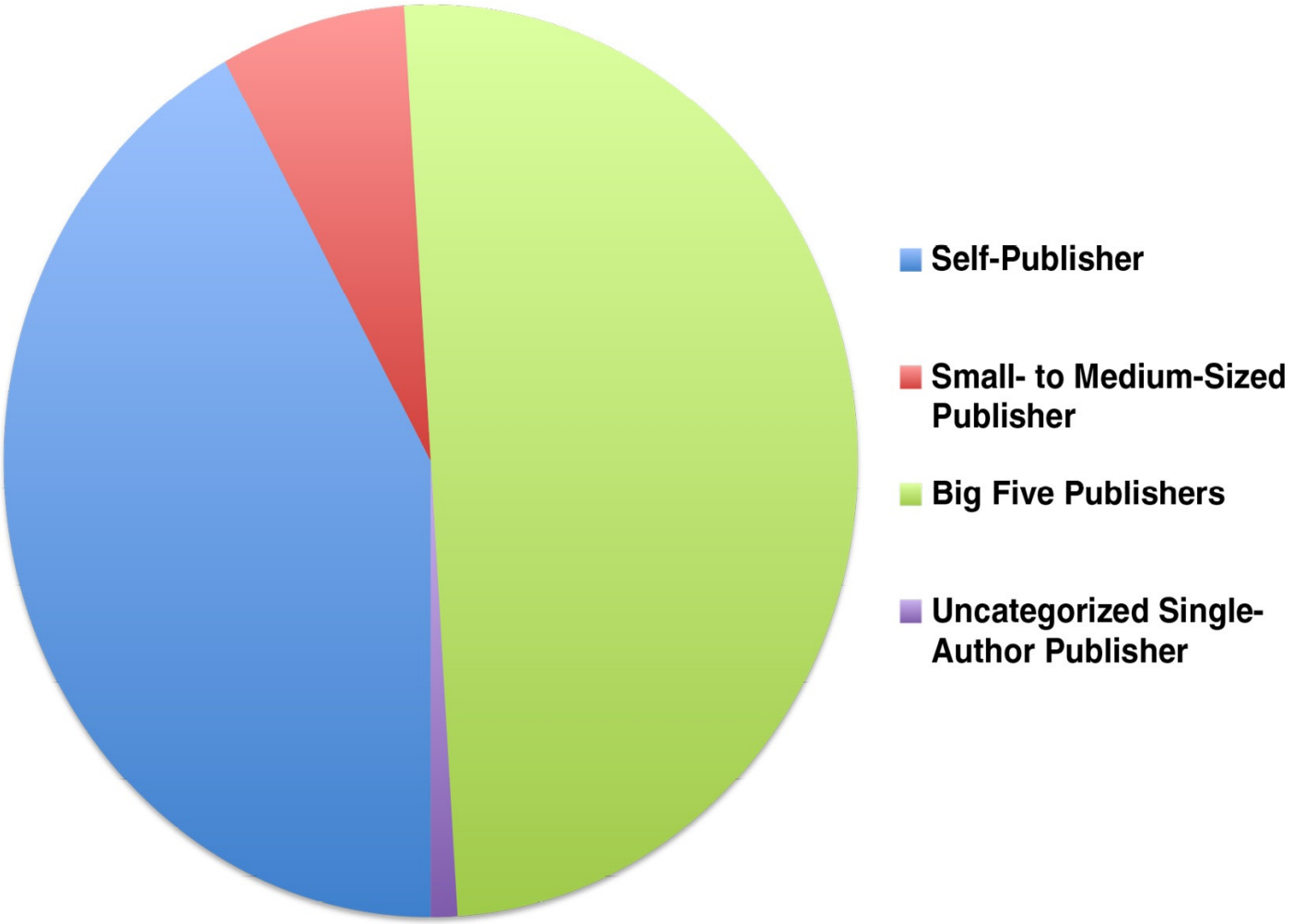


Figure 4.25: Daily Percentage of Revenue to Authors from Sales of eBooks on B&N's Genre Bestseller Lists by Publisher Type

This chart shows the breakdown by publisher type of all funds earned by authors for daily sales of ebooks on the 5,000 genre bestseller lists. Comparing to the same breakdown for Amazon, traditionally-published ebooks with the Big Five earn authors a greater share on Barnes & Noble, though both venues earn self-publishing authors the same percentage o daily dollars (40 percent on Amazon and 42 percent on B&N). It's clear from all four B&N charts that Small- to Medium-Sized Publishers don't have as strong a presence on B&N as on Amazon.

Source: Author Earnings Barnes & Noble Report, July 23, 2014

Self-Publishing

Vanity press has been as dirty a phrase in literary circles as *military intelligence* is within the military and law-enforcement arenas. For decades, only the most desperate oft-rejected would-be authors, or extremists with manifestos to disseminate, self-published particularly in ebook format. The conventional thinking was that if you self-published, it was because you weren't a good enough writer to be signed by a publishing house. The world has clearly changed, as have the reasons people self-publish.

- “Self-publishing now outstrips all the combined titles put out by conventional publishers like Random House and Simon & Schuster” (John Schmid, *Milwaukee Journal Sentinel*, August 14, 2014)
- More than 391,000 books were self-published in the U.S. in 2012, up 422 percent since 2007 (*Milwaukee Journal Sentinel*, August 14, 2014).
- 17 percent is the percentage of growth of self-published titles from 2012 to 2013 (Bowker report *Self-Publishing in the United States, 2008–2013*, October 2014).
- 65 percent of self-publishers are women (*The Guardian*, November 8, 2014).
- Nearly two-thirds of self-publishers are in the 41 to 60 age range (*The Guardian*, November 8, 2014).
- 27 percent of self-publishers are older than 61 (*The Guardian*, November 8, 2014).
- Half of self-publishers are employed full-time (*The Guardian*, November 8, 2014).
- 32 percent of self-publishers have a degree while 44 percent have a higher degree (*The Guardian*, November 8, 2014).
- 287 percent is the percentage the number of self-published books grew during the five years from 2006 through 2011 (Bowker press release, October 24, 2012).
- Only an average of 25 percent of authors (self-published, traditionally published, and hybrid) write as a means to earn money as reported by Dana Beth Weinberg, Ph.D, (January 15, 2014 presentation at Digital Book World). The following are other goals for writing cited by published authors in Dr. Weinberg’s study:
    - 59 percent, to publish a book that people will buy.
    - 47 percent, to build my career as a book writer.
    - 43 percent, to satisfy a lifelong ambition.
    - 42 percent, to share my story with others.
    - 27 percent, to see my book in a bookstore.
    - 25 percent, to obtain validation for my work.
    - 21 percent, to share my expertise on a particular subject with others.
    - 12 percent, to build my brand for purposes other than my writing

career.

- 7 percent, to gain prestige.

Hybrid Authoring—Traditional and Self-Publishing

A *hybrid author* (or simply *hybrid*) is someone who has both self-published and published through traditional channels with an established house. Once a rarity, hybrid authoring is becoming as common and popular as people like both Left and Right Twix. Like that famously dualistic candy bar, there are two sides from which authors approach becoming a hybrid—starting with traditional publishing or starting with self-publishing and then moving into the other.

Keeping the Labels Straight

Self-publishing writers are, most accurately, labeled as self-publishers, though that term isn't indie rock enough for some, so the terms independent author and *indie author*—or the most hip, simply *indie*—were created. They're a bit confusing, though, because before authors wanted to be called indie the small- to medium-sized publishers claimed the term for themselves. They were *indie publishers*, independent from large publishing houses, especially the *Big Five*. What's worse, is that authors who worked with indie publishers were often called indie authors. So no we have authors called indie because they self-publish and authors called indie because they publish through small houses.

Of course, out in the world, the nebulous term causes only slight confusion. In this tome, however, we'll be discussing a number of areas in which drawing a distinction between self-published and traditionally published with small- to medium-sized publishing houses is important. Within the tables and charts in this chapter, for instance, there are large differences between those two segments.

Similarly, though hybrid author is becoming the norm, sales figures, market share, gross sales dollars, and author royalties are all computed relevant to the manner in which a book is published. Thus, throughout the rest of the chapter and this book, books that are published by their authors are described as "self-published"; books published with smaller houses are labeled as being from "small- to mid-size publishers," and; books traditionally published are termed "traditionally published." Indie authors can focus on the figures in the self-published and/or small- to medium-sized publishers columns. Hybrid authors will want to evaluate the data in all columns.

Traditional Publishing to Self-Publishing

Some hybrids, like yours truly, start by eating the Right Twix…er, I mean, by becoming traditionally published authors who later expand into, or move completely over to, self-publishing. There are many varied reasons why a traditionally-published author would choose to self-publish. A few of the top ones tend to be to have more creative control, the ability to experiment with different publishing and distribution models, to publish shorter works, to publish longer works, shortening production time and publishing

sooner, and many other reasons.

Whatever their reasons, there are a number of excellent examples of traditionally published authors who went hybrid. As you can see in the profiles below, many traditionally published authors have also embraced self-publishing. Note that the profiles list only a few titles per author; each has numerous other titles, either or both traditionally and self-published, to his or her name.

Randy Ingermanson

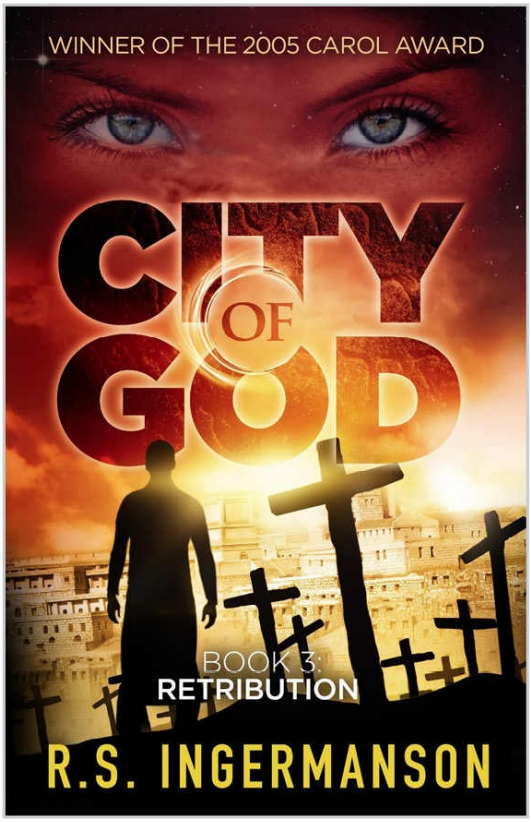


Photo from author's Amazon author page.

Traditionally Published

Who Wrote the Bible Code? A Physicist Probes the Current Controversy (WaterBrook Press/RandomHouse, 2013)

Writing Fiction for Dummies (For Dummies, 2009)

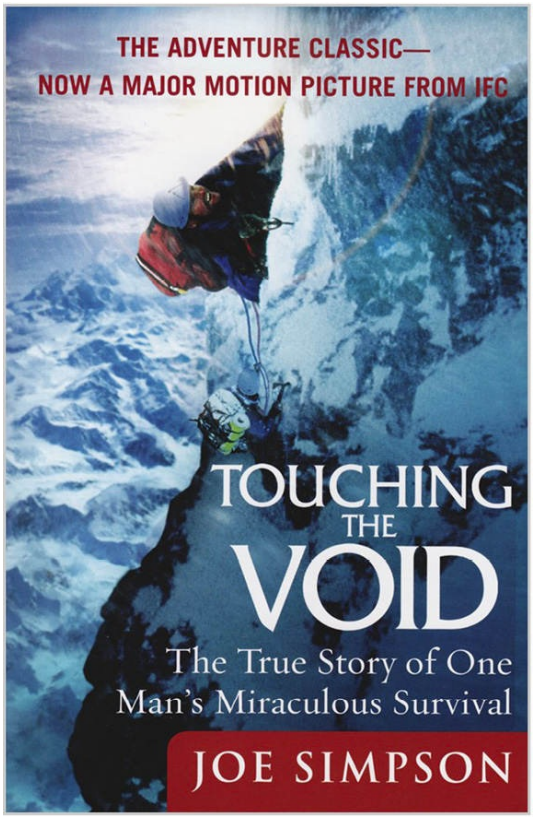
Self-Published

Double Vision: A Quantum Suspense Novel (2013)

City of God Trilogy (2014)

How to Write a Novel Using the Snowflake Method (2014)

Joe Simpson



Traditionally Published

The Sound of Gravity (RandomHouse, 2012)

The Beckoning Silence (Mountaineers Books, 2012)

Self-Published

Touching the Void (2012)

This Game of Ghosts (2013)

Storms of Silence (2014)

Helen Hollick

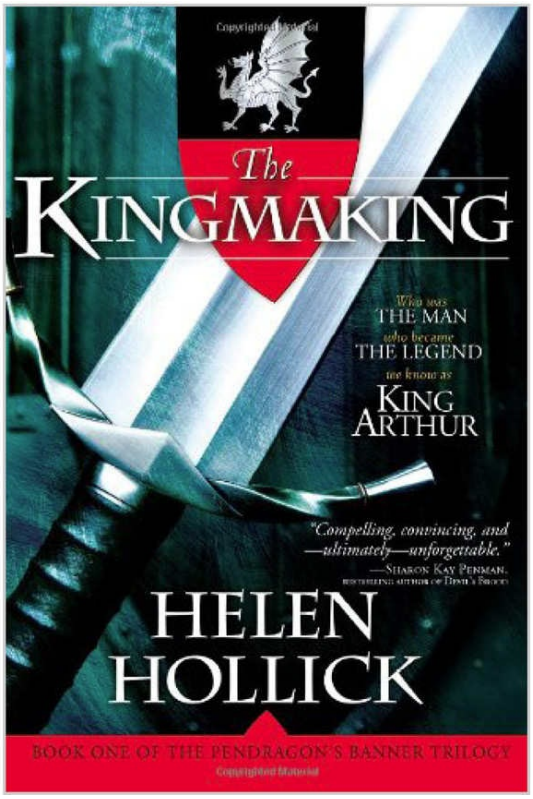


Photo from author's Amazon author page.

Traditionally Published

Come and Tell Me: Be Sensible and Safe (Happy Cat Books, 2002)

A Hollow Crown: The Story of Emma, Queen of Saxon England (William Heinemann, LTD, 2004)

Self-Published

The Kingmaking (*Pendragon's Banner Trilogy*, 2009)

The Forever Queen (2010)

I Am the Chosen King (2011)

Pariah S. Burke (Me)

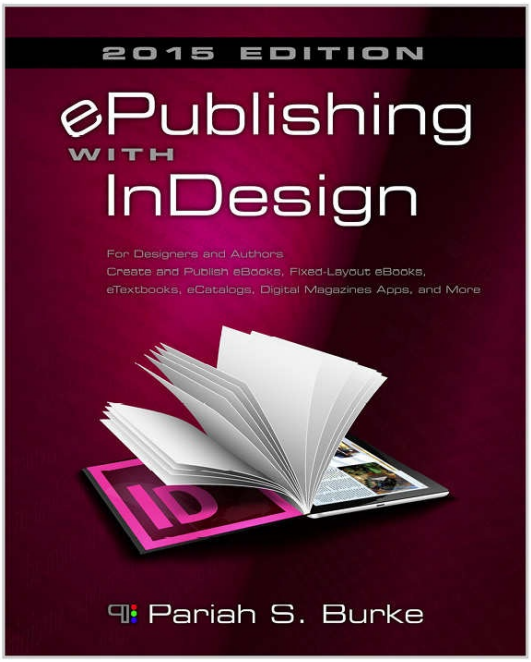


Photo from author's Amazon author page.

Traditionally Published

Mastering InDesign for Print Design and Production (Sybex, 2007, 2010)

ePublishing with InDesign CS6 (Sybex, 2012)

Self-Published

Creating Fixed-Layout eBooks (2013)

ePublishing with InDesign: 2015 Edition (2015)

InDesign Master Class: Print Design and Production (2015)

Self-Publishing to Traditional Publishing

Yes, Virginia, there is a Santa Clause.

On the other half of the hybrid author label are those who start out self-publishing and later sign with a publishing house—the Left Twix first-eaters, if you will. Those deals can have authors publishing all or some of their future books through the publisher, like Amanda Hocking, or the deal could simply be to allow the publisher to distribute a book already successful in its self-published form, such as with *Fifty Shades of Grey*.

Initially, especially with such famous examples as E.L. James, publishing went through a phase where every self-published author sought to build up the audience for a book in a quest for that Holy Grail of Publishing, the traditional publishing contract. A few made it, of course, but a funny thing happened at the end of their journeys: few of them stopped self-publishing. As Indiana Jones discovered on his quest (before *The Kingdom of the Crystal Skull* ruined the franchise), the Holy Grail isn't without cost. Publishers have to make money, too, so authors can't have anywhere near as much of the book cover price as they can with self-publishing. There are advantages to traditional publishing, of course, but those advantages rarely get hybrid authors thriving through self-publishing to publish exclusively through a publishing house.

Instead, like hybrids who started out with traditional publishing, having found success in both publishing models, authors carefully evaluate their options on a per book basis. The question becomes, *Am I more likely to reach my goals for this book with a publisher or without one?*

Here are a few out of a growing list of authors who began their hybrid success by self-publishing.

E.L. James

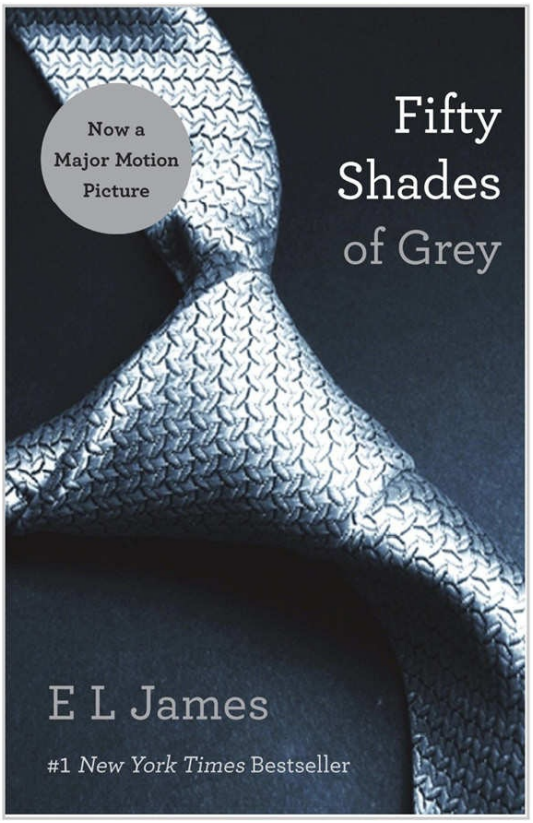


Photo from author's Amazon author page.

Erika Leonard "E.L." James wrote and self-published Fifty Shades of Grey in 2011. It sold more than 70 million copies as an ebook and print-on-demand before Vintage Books bought the distribution rights. All told, it has sold more than 100 million copies, been translated into 52 languages, and turned into a major motion picture release in February 2015 from Universal Studios. The book spawned two other self-published books, Fifty Shades Darker and Fifty Shades Freed, which have also been optioned for feature films.

Lisa Genova

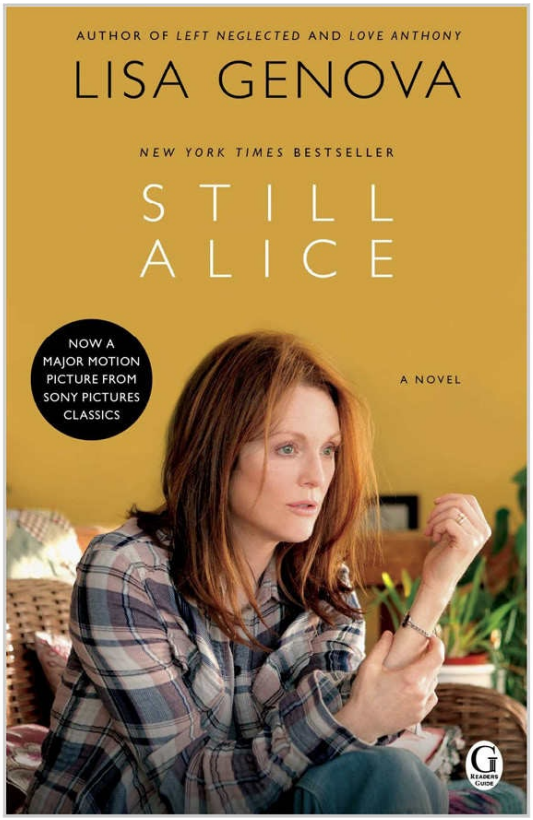


Photo from author's Amazon author page.

Neuroscientist Lisa Genova wrote Still Alice, the story of a 50-something Harvard professor dealing with early onset Alzheimer's disease. When traditional publishers declined to buy Still Alice, Genova self-published it in 2007 against the advice of her agent. Two years later it was acquired for a reported $500,000 by Simon & Schuster and debuted under the Pocket Books imprint in January 2009 at number five on the New York Times bestseller list. It has since been translated into more than 20 languages around the world. Genova has written two additional novels, Left Neglected (2011) and Love Anthony (2012).

Ronald H. Balson

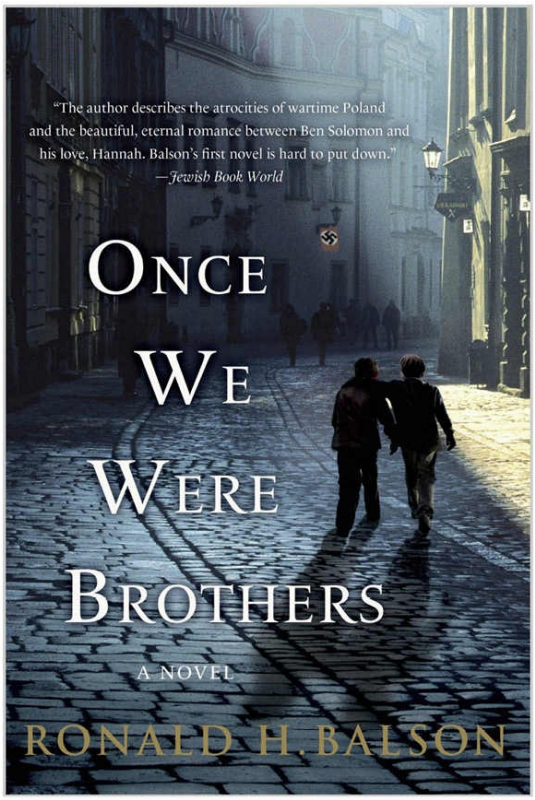


Photo from author's Amazon author page.

Once We Were Brothers is a novel about two brothers in Poland during World War II finding themselves on opposite sides of the Holocaust. After numerous rejections from traditional publishers, Chicago attorney Ronald H. Balson teamed up with his son to found their own publishing company and self-publish Once We Were Brothers. Within two years they had sold more than 100,000 copies in print and ebook. St. Martin's Press later acquired the book and reissued it in the Fall of 2014.

Robin O'Bryant

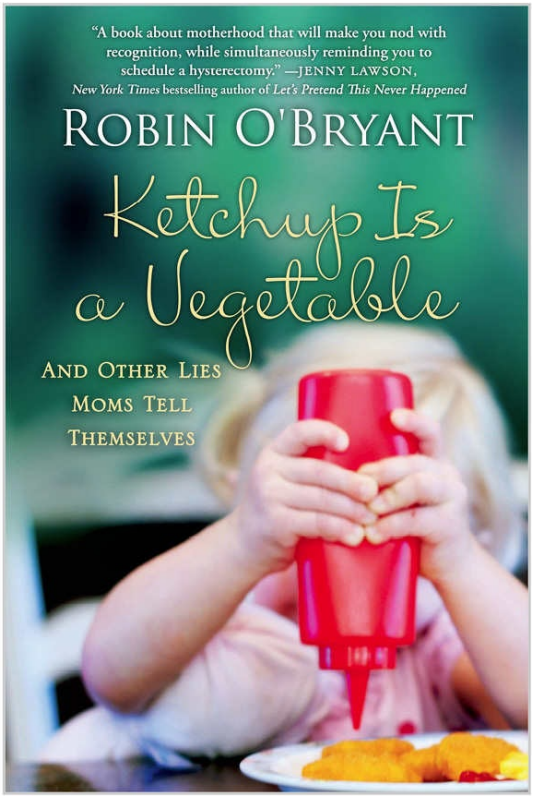


Photo from author's Amazon author page.

In 2011 Robin O'Bryant self-published Ketchup is a Vegetable: And Other Lies Moms Tell Themselves, a satirical and often sarcastic look at daily life for a mother of three. By September 2013 Ketchup is a Vegetable was sitting on the bestsellers lists for the New York Times, the Wallstreet Journal, and USA Today. One month later she signed a two-book deal with St. Martin's Press.

Colleen Hoover

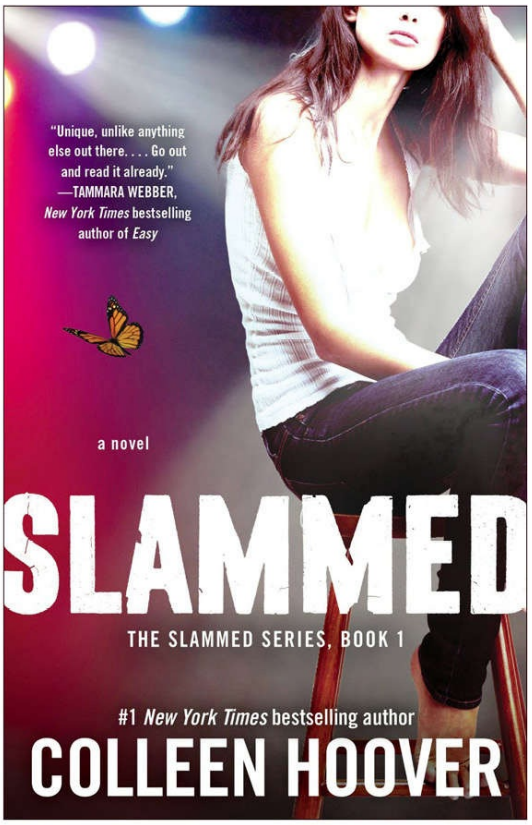
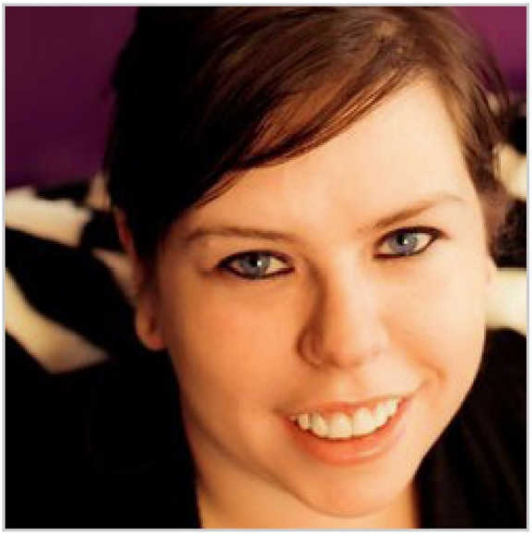


Photo from author's Amazon author page.

Colleen Hoover is the author of six New York Times bestselling novels, the first two of which were self-published when

they made the list. Her first two books, Slammed, and its sequel, Point of Retreat, both made the NYT bestseller list in August 2012, at number 8 and number 18, respectively. Only seven month after releasing Slammed, Hoover signed with Simon & Schuster.

Amanda Hocking



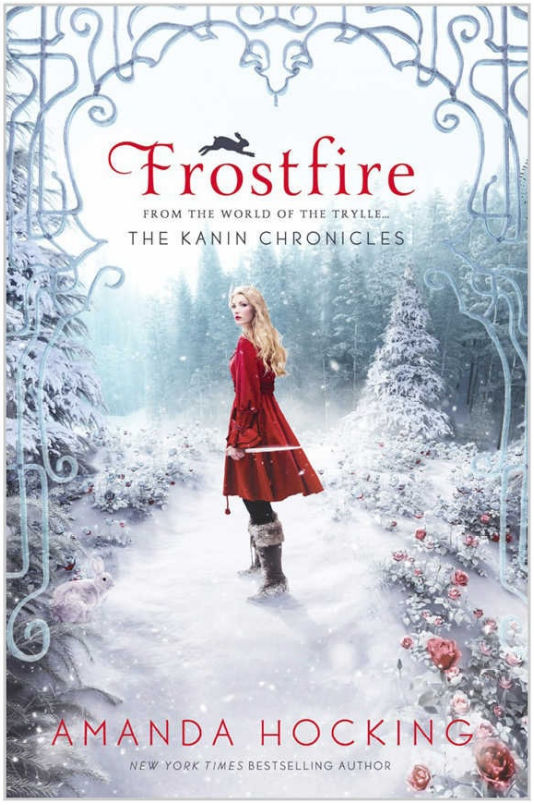


Photo from author's Amazon author page.

In April 2010, unknown 26-year-old group home worker Amanda Hocking began self-publishing Young Adult Paranormal genre ebooks on Amazon for $0.99–$3.99 per copy. A year later she had made $2 million from an average of 100,000 copies sold per month. That sparked a bidding war between Random House, Simon & Schuster, HarperCollins, and Macmillan. Ultimately St. Martin's Press, an imprint of Macmillian, signed Hocking to a reported $2 million contract for a new series of four books. She also sold the film rights.

The Business of eTextbooks

In Chapter 3, "Surveying the Digital Publication Types," I explained how there's plenty of money to be made in etextbooks, but that no one had figured out how. Here are plenty of facts and figures to back up both assertions.

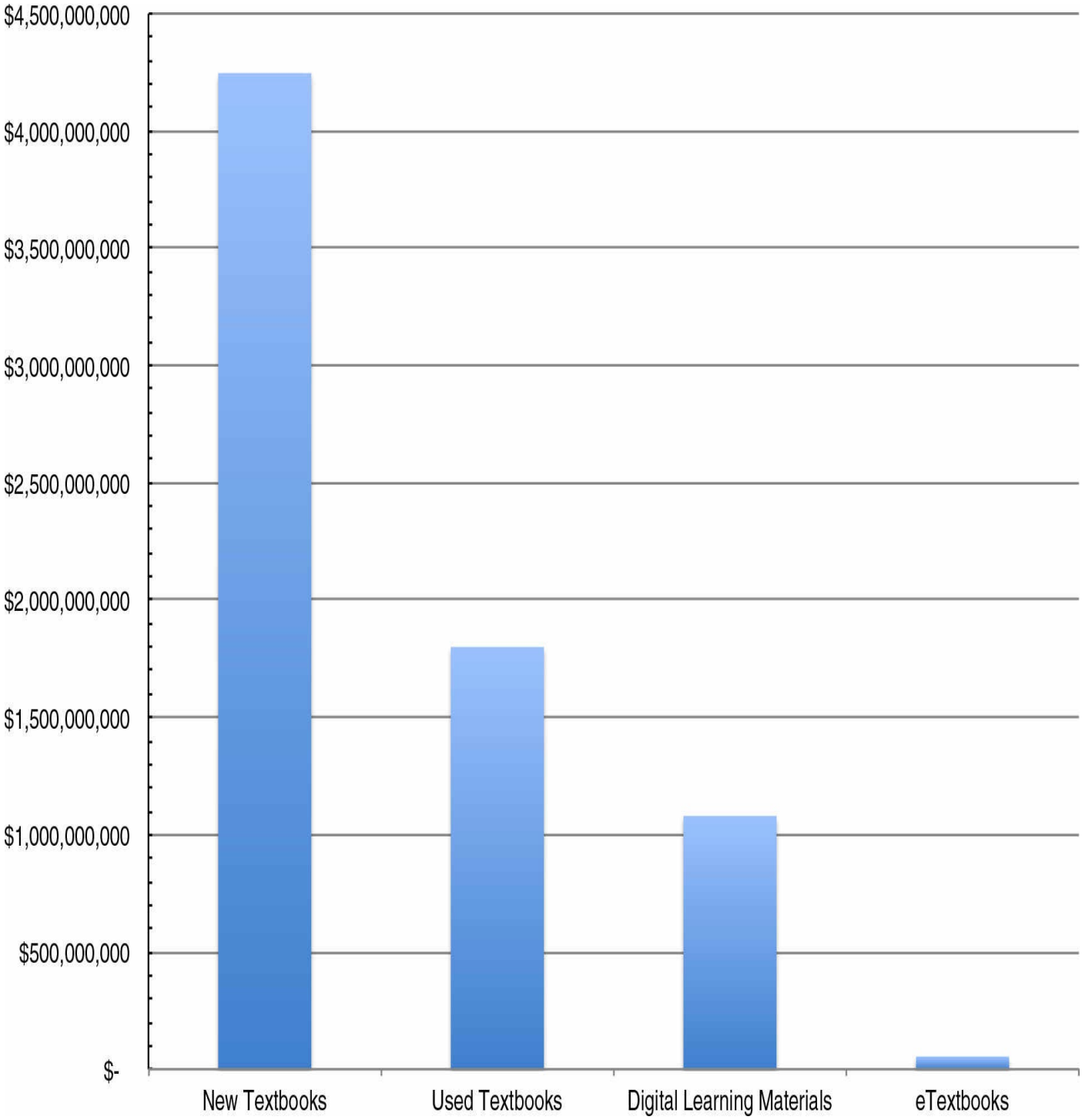


Figure 4.26: Shares of $7.18 Billion Annual U.S. Textbook Market Expenditures

Out of a total of $7.18 billion spent in the U.S. textbook market in 2013, only $54 million was spent on etextbooks. Digital Learning Materials, however, which encompass apps, web-based content, non-linear educational materials, videos, interactive games, and other forms of highly interactive content, rose to take a sizeable share at $1.08 billion.

Source: Campus Technology, December 3, 2014

- “Textbooks are dead. They’re dinosaurs.” (Brian Kibby, president of McGraw-Hill Higher Education, speaking at EDUCAUSE 2014, October 2014).
- $54 million, the amount of money consumers spent on digital versions

of print textbooks out of overall 2013 textbook expenditures of $7.18 billion (*Campus Technology*, December 3, 2014).

- $1.08 billion, the amount of money consumers spent on "digital materials," or etextbook material that isn't simply ebooks with annotation and a few other tools tacked on (*Campus Technology*, December 3, 2014).
- "At [the present] rate of growth and shrinkage, sales of etextbooks will surpass used textbooks in 27 years." (*Campus Technology*, December 3, 2014).
- 96 percent of undergraduate college students own a laptop (*Campus Technology*, August 25, 2014).
- 44 percent of college students assigned to use an etextbook for a course were "at least somewhat or very happy" to be using it (*Campus Technology*, August 25, 2014).
- 39 percent of college students assigned to use an etextbook for a course were "somewhat or very unhappy" to be using it (*Campus Technology*, August 25, 2014).
- $520, the average amount spent per college student during the 2013–2014 school year for course materials, including print textbooks, etexbooks, used textbooks, and rentals (AAP, August 11, 2014).
- 17 percent, the percentage of drop in annual college student spending for course materials since 2010 (AAP, August 11, 2014).
- The Texas Education Agency credits a complete transition to etextbooks in science classes through eighth grade and in high school physics classes for the 13 percent rise in science and 3 percent rise in match scores on the 2014 state standardized tests over the previous year's scores (The Associated Press, September 25, 2014).
- "Publishers are turning themselves into software companies. They're fundamentally changing themselves from publishing organizations to software development houses." (Kent Freeman, COO of Vital Source Technologies as quoted by *Campus Technology*, December 3, 2014).
- 80 percent of publishers believe a subscription model for textbooks is "inevitable," (BISG report *Digital Books and the New Subscription Economy*, July 2014).
- 38,200 employees make up the workforce of scholarly and scientific publishing across 43 of the United States (7 states abstained from the survey, AAP, January 16, 2015).

- $2.3 billion is the annual payroll impact of that scholarly and scientific publishing workforce (AAP, January 16, 2015).
- "It takes $500,000–$3 million, up to 7,000 hours' research and writing, and nearly 200 scholars to produce a new textbook or revise an existing one," (AAP, August 11, 2014).

The Business of eMagazines

Digital magazines are not flourishing, but they aren't dead, either. In fact, there encouraging signs of growth as well as optimistic forecast for the next few years. Consumers have finally begun to accept—and in some segments embrace—both digital replica and interactive magazine formats on their tablets.

Speaking first to digital replica format publications are the following figures:

- 3.8 percent is the percentage of total circulation occupied by digital replica editions for magazines in the first half of 2014, up 0.5 percent from the first half of 2013 (Alliance of Audited Media, August 2014).
- 15.2 percent is the percentage of year-over-year increase in digital magazine circulations in early 2014 (Mequoda, October 7, 2014).
- 12 percent of total circulation is digital (Next Steps *Digital Magazine Dashboard*, October 2014).
- 2.5 percent rise in year-over-year in digital subscriptions between June 2012 and June 2014 (Next Steps *Digital Magazine Dashboard*, October 2014).
- 17 percent rise in single-copy sales of digital edition magazines between June 2012 and June 2014 (Next Steps *Digital Magazine Dashboard*, October 2014).
- 6.6 percent is the increase in total units of digital magazines sold between June 2013 and June 2014 as reported by Next Steps's *Digital Magazine Dashboard*, October 2014.
- 1 in every 8 copies of magazines sold is digital (Next Steps *Digital Magazine Dashboard*, June 2014).
- The top 10 U.S. consumer magazines by digital replica circulation for January–June 2014 (according to an AAM report published August 2014) are:
    1. *Game Informer Magazine*

2. *Shape*
3. *Star Magazine*
4. *OK! Weekly*
5. *Working Mother*
6. *Maxim*
7. *National Geographic*
8. *Taste of Home*
9. *Men's Fitness*
10. *Cosmopolitan*

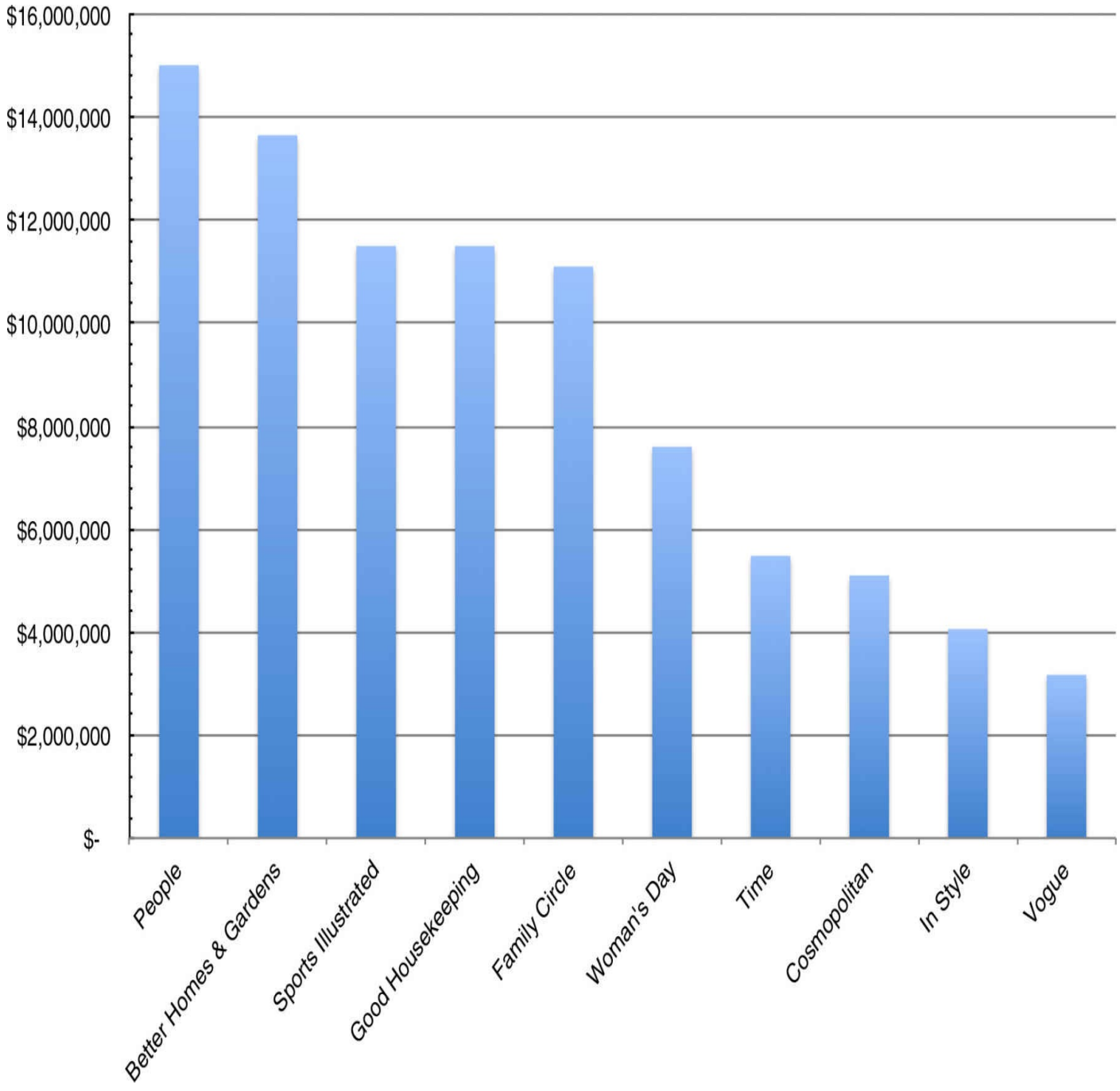


Figure 4.27: Top Digital Magazines Ranked by Ad Revenue

Clearly ad revenue isn't in line with what it should be if the highest grossing publication only makes $15 million per annum.

Source: Yudu Magazine Industry 2014, October 2014

Moving now into combined data for both formats of emagazines, let's talk about revenue, circulation share, and finally, how individual newsstand services perform for various categories of digital periodical. Note that, though the actual numbers differ, several sources are predicting significant rises in revenue in the near future.

- In 2016, total magazine revenue worldwide will reach $97.3 billion (*FIPP World Magazine Trends 2014–15*, December 2014).
- $1.5 billion by 2018 is the digital circulation revenue PricewaterhouseCooper projects (*Ad Age*, June 3, 2014).
- $5.2 billion, the revenue expected to be earned in 2016 by global digital magazine circulation, rising 43.4 percent from 2013 (*FIPP World Magazine Trends 2014–15*, December 2014).
- $7.6 billion is PricewaterhouseCooper's forecast for magazine digital ad revenue by 2018 (*Ad Age*, June 3, 2014).
- $13.4 billion, the revenue projected to be earned worldwide from advertising sales for electronic editions of magazines (*FIPP World Magazine Trends 2014–15*, December 2014).

Table 4.1: Top 24 Magazines Percentage of Digital Edition Versus Print Edition Sales (as of June 2013)

	Subscription		Single Copy		
Publication	**Print %**	**Digital %**	**Print %**	**Digital %**	**Total Digital %**
NYLON	50%	38%	9%	3%	41.1%
Game Informer	59%	41%	0%	0%	40.8%
Ok! Weekly	36%	38%	26%	1%	38.6%
Star Magazine	39%	29%	32%	0%	29.3%
Working Mother	74%	25%	0%	0%	25.7%
Men's Fitness	64%	20%	11%	5%	25.0%
Shape	72%	16%	10%	2%	18.1%
Wired	84%	9%	4%	3%	11.6%
GQ	78%	8%	12%	1%	9.8%

Maxim	86%	9%	5%	0%	9.2%
Motor Trend	87%	7%	5%	1%	8.4%
Popular Science	87%	7%	5%	1%	7.9%
Men's Health	78%	6%	15%	2%	7.3%
HGTV	71%	5%	22%	2%	6.8%
Food Network	71%	5%	23%	2%	6.7%
Women's Health	76%	4%	18%	0%	6.7%
Taste of Home	91%	6%	3%	0%	6.4%
ESPN The Magazine	94%	6%	0%	0%	5.8%
Cosmopolitan	70%	4%	25%	1%	5.1%
US Weekly	76%	4%	20%	1%	4.8%
National Geographic	92%	5%	4%	0%	4.6%
Oprah	84%	3%	12%	1%	4.2%
Reader's Digest	91%	4%	5%	0%	3.9%
BHG	97%	1%	2%	0%	1.5%
Total:	**79.8%**	**11.3%**	**8.1%**	**0.7%**	**12.0%**

Source: Next Steps Digital Magazine Dashboard, October 2014

Table 4.2: Top 24 Magazines Percentage of Digital Edition Versus Print Edition Sales (as of June 2014)

	Subscription		Single Copy		
Publication	**Print %**	**Digital %**	**Print %**	**Digital %**	**Total Digital %**
Game Informer	62.0%	38.0%	0.0%	0.0%	38.0%
NYLON	44.7%	36.2%	18.8%	0.3%	36.5%
Ok! Weekly	38.7%	26.8%	34.3%	0.2%	27.0%
Working Mother	78.5%	21.5%	0.0%	0.0%	21.5%
Star	44.0%	14.5%	41.4%	0.1%	14.6%
Wired	82.6%	10.2%	5.4%	1.8%	12.0%
Maxim	81.9%	10.6%	7.4%	0.2%	10.8%
GQ	74.7%	8.7%	15.0%	1.6%	10.3%
Cosmopolitan	57.4%	7.7%	34.2%	0.7%	8.4%

Men's Fitness	76.7%	6.6%	15.1%	1.6%	8.1%
Popular Science	86.3	7.5%	5.8%	0.2%	7.7%
Taste Of Home	85.6%	6.9%	3.3%	0.1%	7.0%
Reader's Digest	77.0%	6.2%	3.3%	0.1%	6.2%
Men's Health	75.7%	5.5%	18.3%	0.5%	5.9%
Food Network	69.2%	4.7%	25.5%	0.7%	5.3%
ESPN The Magazine	94.7%	4.9%	0.4%	0.0%	4.9%
US Weekly	67.0%	4.6%	25.1%	0.3%	4.9%
HGTV	71.0%	3.6%	24.3%	1.0%	4.7%
Women's Health	76.7%	4.2%	18.7%	0.4%	4.6%
National Geographic	92.3%	4.5%	3.1%	0.1%	4.5%
Oprah	81.9%	3.7%	14.0%	0.4%	4.1%
Motor Trend	89.7%	3.9%	6.3%	0.1%	3.9%
Shape	83.7%	3.6%	12.5%	0.2%	3.7%
BHG	97.4%	0.7%	1.8%	0.1%	0.7%
Total:	**79.9%**	**10.5%**	**9.4%**	**0.3%**	**10.7%**

Source: Next Steps Digital Magazine Dashboard, October 2014

Apple Newsstand, though often the target of neglect criticism by both publishers and consumers, is by far the single largest source of digital magazine titles. As Figure 4.28 shows, Apple's share of the digital magazine market is massive with 13,355 different titles as of October 2014. Google Play Newsstand offers 1,118 titles, and Amazon Kindle Newsstand half as many as that with 545 periodical titles.

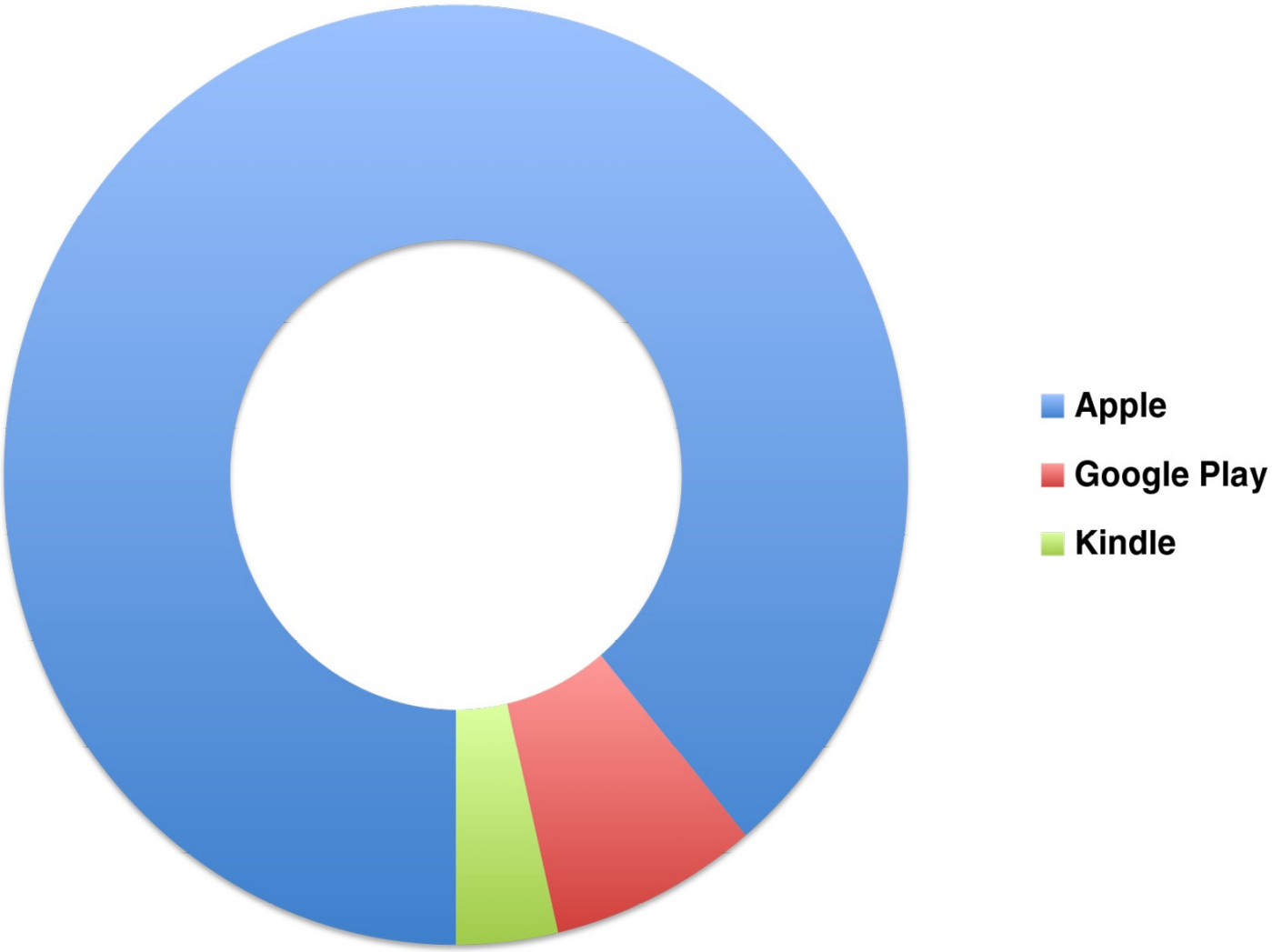


Figure 4.28: Digital Magazine Marketshare by Number of Available Titles (October 2014)

Source: Next Steps Digital Magazine Dashboard, October 2014

Table 4.3: Apple Newsstand Number of Magazines Available by Category

Category	2012 Jan 1	2013 Jun 7	2013 Oct 15	2014 Mar 21	2014 Oct 3
Arts & Photography	188	269	321	386	410
Automotive	265	394	493	581	631
Brides & Weddings	45	55	72	87	109
Business & Investing	445	707	904	1079	1202
Children's Magazines	70	104	134	165	165
Computers & Internet	225	321	373	421	468
Cooking, Food & Drink	135	225	298	366	401
Crafts & Hobbies	176	231	266	299	326
Electronics & Audio	67	96	119	121	133

Entertainment	438	574	691	834	887
Fashion & Style	415	621	770	893	1042
Health, Mind & Body	234	348	491	667	704
History	39	58	74	98	115
Home & Garden	212	306	382	486	555
Literary Magazines & Journals			181	229	253
Men’s Interest			263	325	347
Movies & Music			240	293	323
News & Politics			849	970	1085
Outdoors & Nature			140	173	183
Parenting & Family			120	154	169
Pets			69	89	88
Professional & Trade			484	580	674
Regional News			151	163	190
Science			235	382	463
Sports & Leisure			907	1022	1099
Teens			45	48	56
Travel & Regional			601	723	790
Women’s Interest			374	437	487
Total	**2954**	**4309**	**10,047**	**12071**	**13355**

Source: Next Steps Digital Magazine Dashboard, October 2014

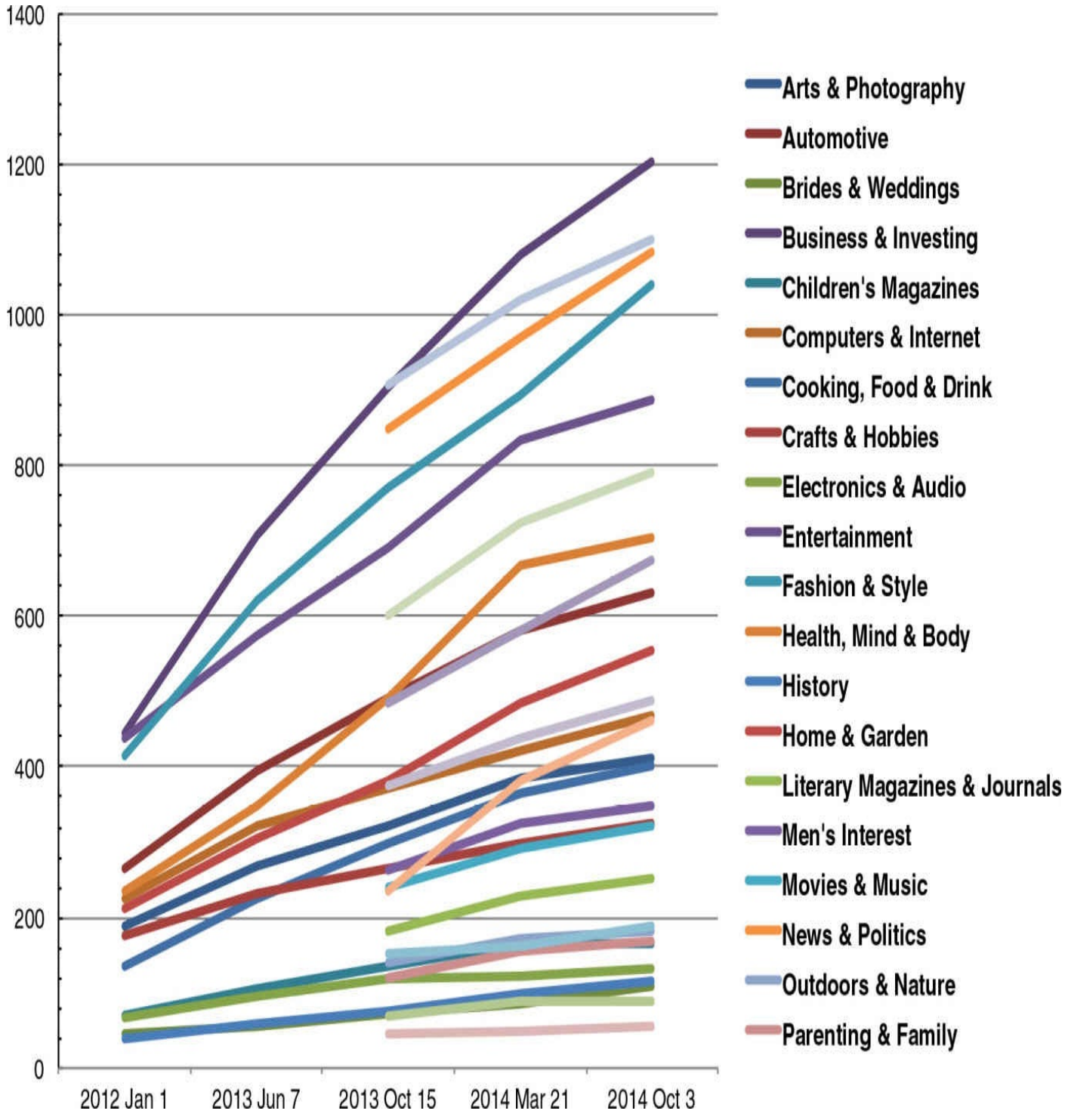


Figure 4.29: Apple Newsstand Number of Magazines Available by Category

Here is a visualization of the data from Table 4.3, "Apple Newsstand Number of Magazines Available by Category."

Source: Next Steps Digital Magazine Dashboard, October 2014

From the data we can draw the following conclusions:

- An 11 percent growth trend continues.
- Nearly all categories of titles see consistent growth in the Apple Newsstand despite frequent complaints by publishers and consumers that Apple neglects the function and marketing of Newsstand.

- The most populated categories of titles, and thus likely the areas in which readers most embrace digital periodicals, are those with time-sensitive, short lifespan content. Business & Investing (1,202 titles in 3Q2014), Sports & Leisure (1,099 titles), News & Politics (1,085 titles), Fashion & Style (1,042 titles), and Entertainment (887 titles) are the top five most populated categories for the last three polling periods.
- Teen magazines are the fewest, though rising slightly.
- Brides & Weddings and Science exhibit the largest category growth up 25 percent and 21 percent, respectively.

Table 4.4: Google Play Newsstand Number of Magazines Available by Category

Category	2012 Jan 1	2013 Jun 7	2013 Oct 15	2014 Mar 21	2014 Oct 3
Arts & Photography	32	48	51	57	61
Automotive	54	57	69	82	78
Business & Finance	12	15	15	15	16
Crafts & Hobbies	23	90	105	120	118
Entertainment	42	72	100	111	113
Food & Drink	15	27	56	59	65
Health & Fitness	20	35	42	49	44
Home & Garden	39	58	86	93	108
Men’s Lifestyle	10	29	42	46	42
News & Politics	12	20	24	27	27
Parenting & Children	12	12	17	17	19
Science & Technology	30	53	76	89	99
Special Interest	19	41	56	67	69
Sports	66	98	112	126	136
Travel	8	13	14	17	20
Women’s Lifestyle	52	77	95	101	119
Total	**446**	**745**	**960**	**1076**	**1134**

Source: Next Steps Digital Magazine Dashboard, October 2014

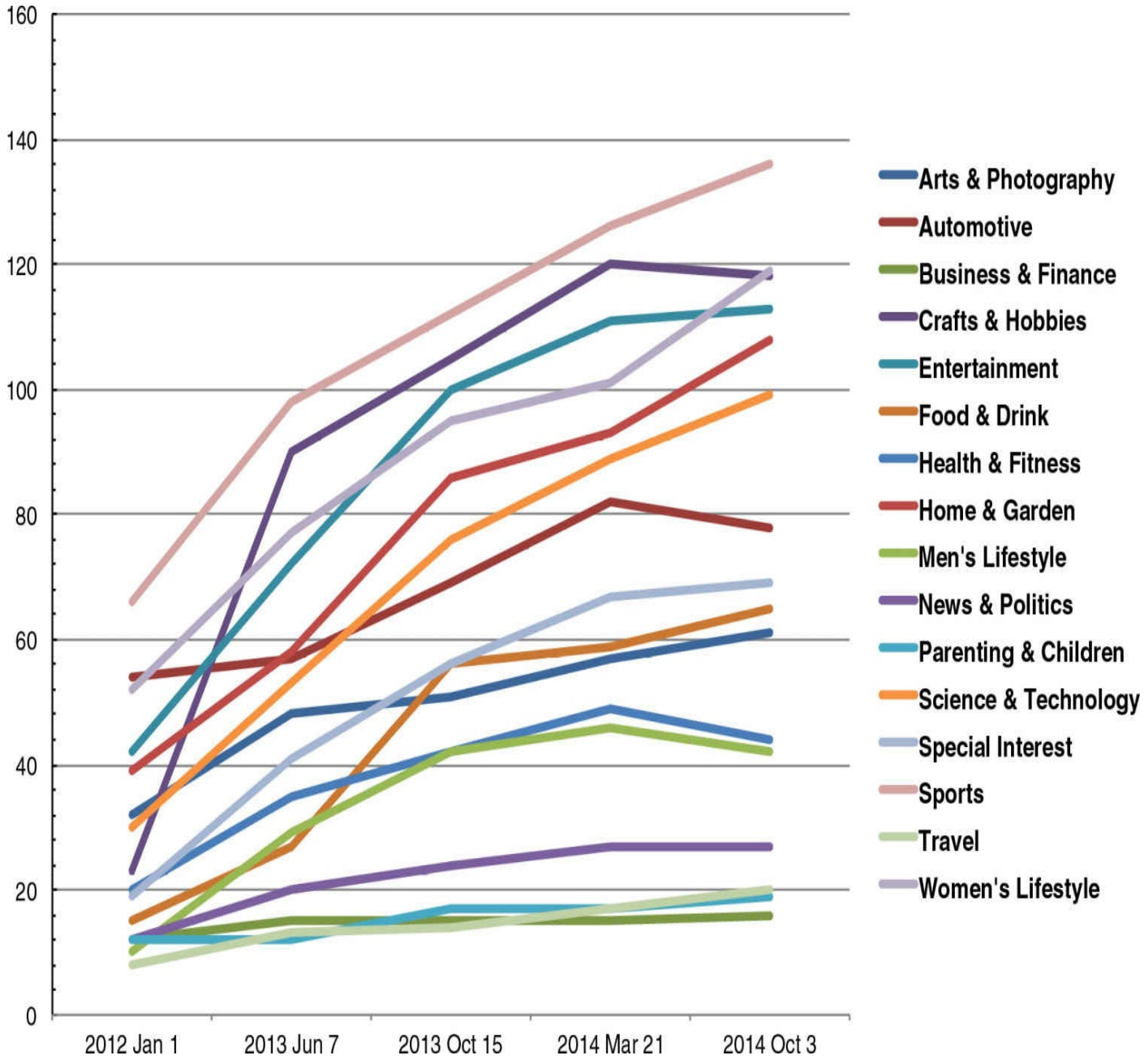


Figure 4.30: Google Play Newsstand Number of Magazines Available by Category

Here is a visualization of the data from Table 4.4, "Google Play Newsstand Number of Magazines Available by Category."

Source: Next Steps Digital Magazine Dashboard, October 2014

Conclusions we can draw from the Play Newsstand data include:

- Growth remains steady between periods at 5 percent.
- With an 18 percent percent increase each, Women's Lifestyle and Travel are the fastest growing categories.
- Conversely to the figures from the Apple Newsstand, periodicals containing time-sensitive, short lifespan content are not numerous on Google Play Newsstand. From this we might cautiously infer that the

average person who consumes digital magazines on Android devices does not read, or does not read in digital form, periodicals about finance, business, news, and politics.

- Sports is an exception as it is time-sensitive, short lifespan content while also being the most populated category.
- Also highly-populated by titles are categories typically lumped together as “women’s interests”, including Women’s Lifestyle with 119 titles as of 3Q2014, Crafts & Hobbies with 118 titles, Entertainment containing 113 titles, and Home & Garden with 108 titles.
- Those same categories often overlap heavily with the “senior living” designation, though so does the Travel category, which only contains 19 titles (the second least in the list). For that reason I’m hesitant to assume merely from this data that seniors (of both genders) are a significant audience for digital magazines sold through Google Play Newsstand.

Table 4.5: Amazon Kindle Newsstand Number of Magazines Available by Category

Category	2012 Jan 1	2013 Jun 7	2013 Oct 15	2014 Mar 21	2014 Oct 3
Arts & Photography		20	20	19	43
Automotive		33	33	31	36
Business & Investing	42	35	35	33	41
Children & Teens					29
Computers & Gaming		14	14	13	16
Cooking, Food & Wine		24	32	29	28
Crafts & Hobbies		11	40	39	39
Entertainment	167	22	22	18	17
Family & Parenting		8	10	25	25
Fashion & Beauty					29
Health & Fitness		34	25	41	42
Home & Garden		34	33	28	31
Lifestyle	273	41	41	33	29
Men’s Interest		25	83	78	63
Music		7	6	6	6
News, Politics & Opinion	60	76	76	70	71

Religion & Spirituality		16	17	17	17
Science, Technology & Nature	46	24	24	22	21
Sports	111	65	63	61	76
Travel & Adventure	45	16	16	15	22
Weddings					10
Women’s Interest		35	35	20	18
Total	**744**	**540**	**625**	**598**	**709**

Source: Next Steps Digital Magazine Dashboard, October 2014

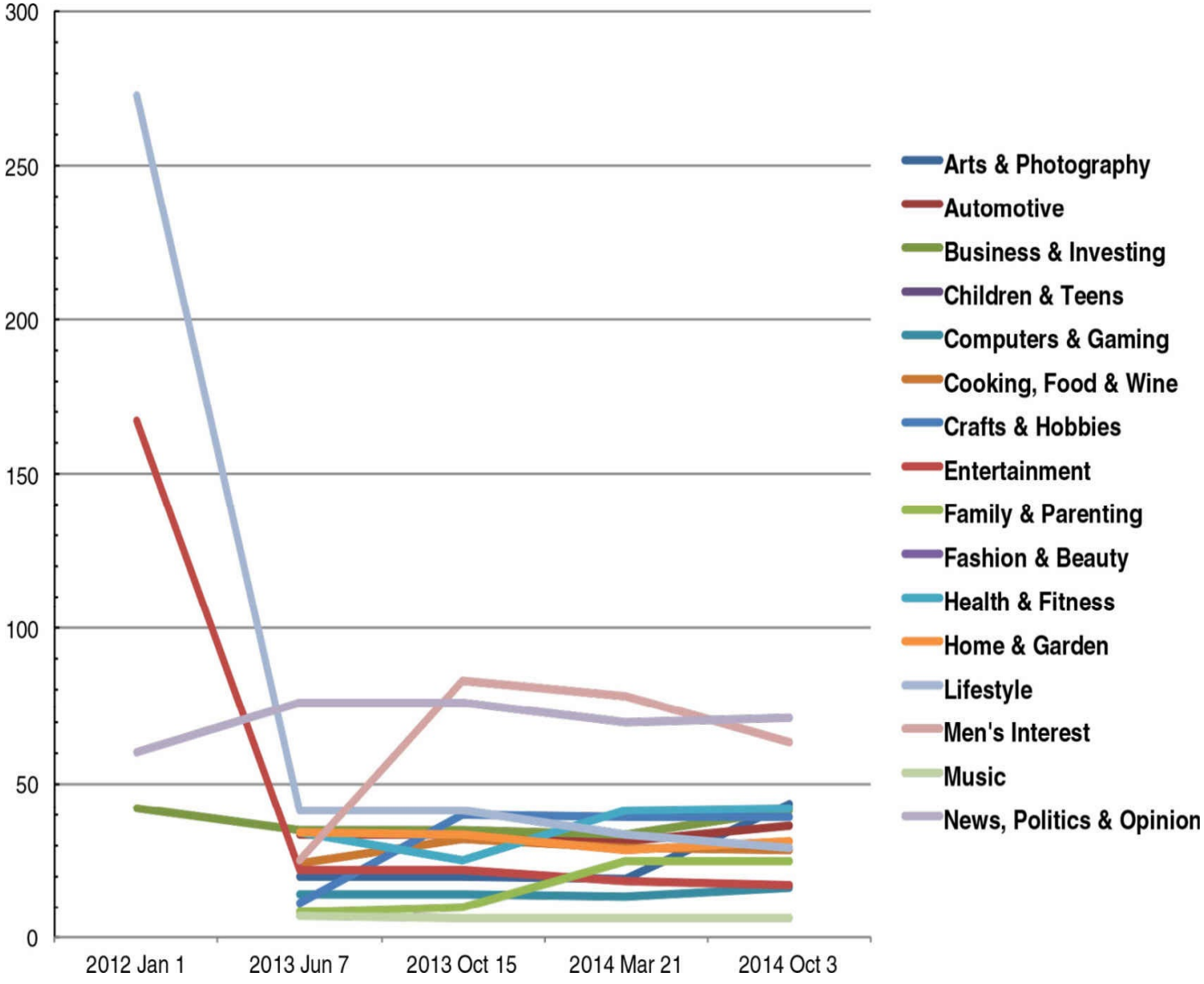


Figure 4.31: Amazon Kindle Newsstand Number of Magazines Available by Category

Here is a visualization of the data from Table 4.5, “Amazon Kindle Newsstand Number of Magazines Available by Category.”

Source: Next Steps Digital Magazine Dashboard, October 2014

This data lends itself to some very obvious conclusions:

- Amazon Kindle Newsstand has never offered a comprehensive selection of digital magazine titles.
- Between the last two periods the overall growth trended upward 5 percent.
- Even breaking up the Entertainment and Lifestyle categories into more focused categories in 2Q2013 didn't lure significantly more titles to Amazon.
- The category with the highest growth is Arts & Photography with a 126 percent increase to 43 titles in 3Q2014.
- Sports leads the categories with 76 titles as of 3Q2014, followed by News, Politics & Opinion with 71 titles, and Men's Interest with 63.
- Although Men's Interest closed 3Q2014 with the third largest selection of titles, it's clearly declining with previous title counts of 83 one year before and 78 six months before.

Be Alerted to Revisions & Updates

Sign up for the free (*and spam-free*) ePublishing with InDesign Series email newsletter to be alerted about updates and revisions on in this book. Sign-up here: http://iampariah.com/newsletters

The newsletter is used only for alerting readers to updates, revisions, and spin-offs from this book (and its exercise files). Subscribers' information is *never* sold, rented, or used for any other purpose.

Glossary of Terms

alpha

In terms of software, an alpha release is one that is an early version of the software produced primarily for the testing by developers. Among the characteristics that mark software as alpha version are known bugs, incompatibilities with other software and possibly with hardware as well, and the absence of certain features planned for the retail release of the software. After alpha version is beta version, a more stable version of the software produced for wider distribution and testing, often in real-world workflows by a select group of experts and clients. Adobe broke with the alpha and beta tradition with Digital Publishing Suite by providing the alpha version of DPS, including the InDesign plug-in Folio Producer Tools and the online DPS dashboard interface, to several large publishers. Those publishers produced the earliest DPS-powered interactive magazine–format publications despite the alpha status of the software. See also: *beta*.

anti-aliasing

Because square pixels comprise computer screens and rectangular pixels comprise television screens, an effect called aliasing (or *stair-stepping* or *jaggies*) occurs when the edges of objects don't perfectly align with the pixel grid. For example, with a capital *A*, the crossbar aligns perfectly horizontally with the pixel grid, but the lines that form the majority of the shape are diagonal, which means they cut across several columns of pixels. A single pixel may be only one color and cannot be bifurcated; thus, if a diagonal stroke in the *A* falls partially within the pixel, then the entire pixel must be colored. As the strokes progress diagonally, a series of pixels fills in, converting a smooth diagonal stroke into a stair-stepped series of square (or rectangular) pixels. Anti-aliasing is the method (with several submethods) of trying to reduce the appearance of this stair-stepping effect in pixels. The method of reduction works within the requirements of each pixel being a solid color by altering the color of pixels to match the percentage of the pixel that would have been used were pixel division possible. For example, if part of the *A*'s black diagonal stroke fills only half of the pixel, then the color of the pixel is changed to 50 percent gray, tricking the mind into interpreting the pixel as only half-filled. Anti-aliasing also colors pixels outside where the strokes of a letter or object land with small percentages of color to help convey the illusion of smoothness.

apps

With the rise of smartphones and tablets with limited capacity for RAM and storage space has come the age of apps. An application in the computer world is a fully functional, often complex program with many functions and features. An app, by contrast, is a specialized program that is small in terms of storage space and system requirements

compared to applications and limits its features to a niche function. Although the mobile industry didn't invent the concept of apps, it did popularize it because the software we install on our smartphones and tablets consists of, by necessity, apps and not applications. The slogan most responsible for rise of the term *app* in popular culture was Apple's, accompanying its first-generation iPhone: "There's an app for that." The term *app* became even more part of the social consciousness when Apple's slogan was satirized and adapted to many other, often humorous, situations and products, including besmirches of Apple itself.

ATOM

ATOM refers to both an XML-based method of feeding web content and a publishing protocol used for creating and updating web resources. It's the former I most often reference in this book. ATOM was created as replacement to Really Simple Syndication (RSS), which was the standard at the time for pushing content from a Web server to readers and their software clients rather than awaiting readers to visit the website and consume the content there. The function of ATOM is the same as that of RSS, differentiated only by the geeky bits of how the two systems work. Suffice it to say that ATOM and RSS are nearly interchangeable, and any website or web-based server content can be delivered in either or both formats. See also: *RSS*.

backlighting

In terms of mobile devices, backlighting means that the device screen is illuminated from behind (the screen appears self-illuminating). Mobile phones and tablets contain backlighting, while ereaders typically don't, which is what makes them to the average person comfortable for long reading sessions. eReaders like the nontablet NOOK and higher-end Kindle devices, omit backlighting to simulate the appearance of a printed book.

beta

Beta-version software is a not-ready-for-sale release of the software, often with known bugs and incompatibilities and often lacking certain features and functions planned for the retail release. Software companies such as Adobe produce beta software for release to a select but often large and well-rounded group of experts and clients so that they may test the software under real-world conditions, in real-world workflows, and provide feedback to the software maker to aid in the fixing of bugs and incompatibilities and the finalizing of the product's feature list in an expected full retail version.

Big Five

In the publishing industry, Big Five is the term used to collectively identify the world's five largest book and textbook publishers, Penguin Random House, Macmillan, HarperCollins, Hachette, and Simon & Schuster.

bit rate

This is the rate at which bits of data are transferred from one place to another. For example, take an MP3 file with a bit rate of 128 bits per second (BPS). The quantification means that 128 bits of data will be transferred per second from the MP3 reader to the MP3 player module; thus, 128 bits of audio data may be played every second. A 256BPS MP3 song will result in twice as much audio data as a 128BPS version, creating a more rich and vibrant sound.

carry-over

This is a notation to readers that the current point in a threaded story is not the beginning of the story; instead, it continues here from an earlier place, as in "continued from page 10." This is also known as *carry-over line*, *continued line*, or *continue head*. See also: *jumpline*.

cloud

The word *cloud* as used in phrases such as "the cloud" and "cloud storage" refers to the manner in which digital storage space is delivered as a service. This storage space is typically redundant and noncentralized, meaning that the data exists simultaneously on several hard drives, on several servers, and often in several global locations simultaneously to mitigate the risk of data loss or data inaccessibility due to a hard drive or connective failure at the server level. For example, with the purchase of an iPad, owners are given access to cloud-based, or online, file storage in Apple's iCloud service. All files stored in the iCloud service are available from any Internet connection in the world to all iOS devices running iOS 5 and newer, as well as computers that install the iCloud client software. Google, Microsoft, ASUS, Dropbox, Box.net, Rackspace, and numerous other companies offer cloud-based file storage and often other cloud-based services, some free and some paid.

Creative Commons

Creative Commons is a digital-era attempt at defining and enforcing intellectual-property law in a manner that is relevant to a world in which content is now available via electronic means to everyone, everywhere. Unlike precedent-based U.S. and international intellectual-property law, which is complex, incomplete, and inconsistently applied not only between different countries but often between similar situations in the same country,

Creative Commons offers an internationally consistent set of licenses that group rights and privileges content creators and content users can easily understand and use. The system is backed by an informative website at http://creativecommons.org that succinctly and in plain English (or Spanish or French or Japanese or…) describes what allowances content creators are granting to users and what those users may and may not legally do with the content under the chosen Creative Commons license. Tools on the website, such as a short, question-based license selector, help creators quickly and without risk grant certain licenses to their work—such as the license to distribute the work or the license to allow commercial use of the work—while retaining all other rights under U.S. and international copyright law. Some of the images used in this book and in its lesson files were used under Creative Commons licenses.

cord-cutter

A cord-cutter is someone who cancels traditional cable or satellite television services in favor of using Internet-based, streaming video services such as Hulu.com, Netflix.com, HBO GO, and similar on-demand entertainment services.

cord-cutting

See *cord-cutter*.

CSS

CSS stands for Cascading Style Sheets, the means by which styling is accomplished in HTML-based content. CSS style definitions and attributes such as font size, color, and much more are applied to HTML content tagged or named a particular way. CSS figures heavily into EPUB design because EPUBs are, like HTML, XML-tagged.

digital replica

Digital replica is a format of electronic publication that is effectively the print version of the publication viewed on screen. It is a replica of the print version in digital format. I often call digital replicas “app via PDF” because most digital-replica systems directly convert a PDF of a publication into an app capable of running on mobile devices. Depending on the system employed, digital replicas can often include basic interactivity such as hyperlinks and sometimes embedded audio and video objects.

Because of the rapidity with which digital-replica systems are changing at the time of this writing, coverage of this particular format is limited in this book. I do go in depth into the various digital-replica systems as well as how to incorporate digital-replica publishing into your workflow in webinars, on-site consulting and training, and articles. See my

website at http://iamPariah.com for further digital-replica and digital-publishing education and workflow needs.

digital rights management

A system of controlling users' access to digital content such as as ebooks, music, video, and other content. A DRM (digital rights management) system restricts content access to the users who have the right to access via purchase, rental, or other authorized means, and may limit the actions authorized users may perform with and on the content based on a set of administrator-defined rules. Amazon.com is one of the more prominent examples of successful digital rights management in the ebook space. Amazon's DRM systems enable access to the same ebook, at the same point in the ebook, across all devices employing the authorized user's account without allowing the user to share the content with unauthorized users. Moreover, Amazon's DRM usage has been expanded in recent years to allow rental check-in/check-out services in the form of the Kindle Owners' Lending Library, a service that enables purchasers of ebooks to lend (at no cost) or rent (for a fee to be paid to the original purchaser) ebooks to other Kindle account holders.

DRM is often derided as unnecessary and intrusive, but that belief is largely a result of attempts to apply DRM to music and video content. In such cases, the DRM often interferes with authorized users' ability to use the content in authorized ways. DRM systems in use on DVD and Blu-ray videos has historically been particularly disruptive and frustrating to users. In the epublishing industries, however, including ebooks and digital periodicals, DRM has been quite effective for publishers while simultaneously being non-distruptive and often invisible to authorized users.

DRM

The abbreviation for *digital rights management*.

Dublin Core Metadata

Refers to Dublin Core Metadata Element Set, which is an international standard set of properties or information forms that describe types of resources. Dublin Core Metadata is the set of metadata included in various documents, images, and epublications (including EPUBs), that communicate where the content came from, who created it, when it was created, who owns the rights to it, and various other relevant information describing, but not necessarily included within, the content. You can learn more about Dublin Core Metadata at http://dublincore.org.

Although you may think the initiative is named for the city in Ireland, its origins are less exotic—it began at a 1995 workshop in Dublin, Ohio.

end sign

This is a symbol, mark, or icon used to indicate the end of an article, particularly when the article jumps between pages.

enhanced ebook

This is a nebulous term that refers to any ebook that contains more interactivity or multimedia than a typical novel in ebook form that is merely text and basic pictures. The term is most often used in marketing to communicate to the would-be buyer of an ebook that it includes such extra features. Some consumers have consequently come to adopt the term, though, as the definition of "ebook" evolves to include more media and interactivity as standard elements, so must evolve the definition of "enhanced ebook." Ergo, there isn't really such a thing as an enhanced ebook.

fixed-layout ebook

Often referred to as *children's ebooks*, *picture ebooks*, *photo books*, and similar monikers, fixed-layout ebooks are visually rich layouts that offer much more than standard EPUBs. Unlike standard EPUB-based ebooks, fixed-layout ebooks don't automatically reflow to fit the device on which they're viewed. Instead, they behave very much like PDFs or even digital magazines, displaying the design, typography, and page geometry exactly as designed on all devices that support fixed layout. Screen fitting is limited to zooming and whether to show a single page or a two-page spread.

This specialty type of ebook tends to be very reliant on imagery, either or both as inline graphics or page background images and sometimes even as spread-spanning images. They support advanced typographic control and pixel-precise layout, and they can contain read-along, on-demand, or ambient audio. Limited interactivity may also be achieved through JavaScript integration. Objects can be placed anywhere on the page, aligned relative to one another, with absolute precision, and type control goes far beyond standard, flowable EPUB in the forms of support for any font (with embedding), accurate line wrapping, hyphenation, leading control, tracking (letter spacing), and even multiple columns. Fixed-layout EPUBs may have real sidebars, note or tip boxes, and live-text image captions. And, like flowable EPUBs, all the text—even in such special features—is searchable, live text.

At the time of this writing, fixed-layout ebooks are entirely proprietary with limited device support. They can be viewed on iOS devices, Kindle Fire, NOOK tablet, and Kobo Vox, though each device manufacturer has its own unique system and format for creating fixed-layout ebooks. For instance, to make a fixed-layout ebook available in the iOS

iBookstore, it must be built completely differently than the KF8-format version created to sell through the Amazon Kindle store for viewing on a Kindle Fire.

Because of the frequent changes inherent in the formats, device support, and workflows for creating the highly profitable and popular fixed-layout ebooks, fixed-layout ebooks are not discussed in detail in this book. Please consult http://iamPariah.com for information on the latest industry changes you need to know in order to make fixed-layout ebooks a profitable part of your business.

flush

This is the clean edge of type. For example, this page is printed with type flush left, meaning that the type aligns along the left to create a clean edge.

folio

In the Adobe Digital Publishing Suite, a folio is one or more articles or layouts built for DPS deployment.

FXL

This is a shorthand name for *fixed-layout ebook* growing in popularity among the publishing community.

glyph

This is a single character, pictogram, mark, or entity within a font or language.

HTML5

This is the latest generation of the Hypertext Markup Language (HTML). HTML5 supports animation, multimedia, and advanced adaptive content. When incorporated into epublications such as interactive magazines, HTML5 can fill in interactive or content-presentation features and effects that the native interactive magazine–format tools like Adobe DPS, Aquafadas DPS, and others cannot natively create. HTML5 is also an iOS-supported alternative to Adobe Flash–format animations, multimedia, and games, and it can do nearly everything Flash can do.

hybrid author

Authors who have self-published and published through traditional means with an established publishing house.

hybrids

Generally this is used as an alternate term when referring to *hybrid author*.

indie author

Indie author is the new de rigueur term for someone who self-publishes and/or publishes with a small- to medium-sized publishing house, also called an independent or indie publisher.

indie

The term indie can mean either an independent author or a small- to medium-sized publisher. See *indie author*.

interactive magazine

Interactive magazine is a format of digital publication optimized for touch-based navigation and tablet viewing and may contain a great deal of interactivity, including hyperlinks, audio and video, image and video slideshows, panoramic images, 3D rotatable objects, scrollable areas, content replacements, and embedded web content. All of this is wrapped into an app with swipe-to-page and pinch-to-zoom capabilities and visual tables of contents with or without page thumbnails. As of this writing, interactive magazines are viewable only on tablets and certain smartphones; they are not accessible on standard computers.

interactive replica

This is an alternate term for *digital replica*.

JavaScript

Developed initially by Netscape (remember that?), JavaScript is an open scripting language designed to add and control dynamic content in websites and HTML-based content and user interfaces. In terms of epublishing, JavaScript is a very popular scripting language that can be used, to varying degrees, within ebook, fixed-layout ebook, and interactive magazines.

jumpline

This is a directive to readers that a threaded story resumes at a later point, as in “continues on page 83.” This is also known as a *continue line* or *jump head*. See also: *carry-over*.

KF8

This stands for Kindle Format 8, the file format launched in the first quarter of 2012 as the new standard for ebooks, *fixed-layout* ebooks, and other digital publications produced for the newest generation of Kindle devices.

lossless

In the context of this book, the term *lossless* refers to a type of image compression that reduce the file size of images without reducing the quality. PNG-24 is a lossless format, while JPEG is the opposite, employing a lossy compression method that discards pixel data in order to achieve compression.

magalog

This is an industry term describing a publication formatted as, or including, editorial content but whose primary purpose is to sell or advertise products. The term is a mash-up of *magazine* and *catalog*.

MathML

Mathematical Markup Language is a recommendation (not a standard) of the W3C for describing mathematical and scientific programs and formulae on the Web and in electronic publications. It has been under development since 1998.

open source

This refers to software whose code has been made available for use or modification without use or licensing restriction or fee to the general public. The popular blog and content-management software WordPress is an example of open source software.

OpenType

This is an intelligent font software based on Unicode. OpenType fonts (or simply OpenTypes) have predefined spaces for more than 65,000 glyphs from more than a dozen languages. These fonts often contain variant designs such as true small caps, swashes, contextual alternates, ordinals, and several versions of numerals in a single file, replacing several separate fonts required to achieve the same functionality in Type1 or TrueType fonts. OpenType fonts are identified on a computer by the extension .otf, although in many cases they bear the old TrueType .ttf file extension revealing the fact that, at their cores, OpenType fonts are structured as either Type1 or TrueType. OpenType fonts are 100 percent cross-platform; the same font functions and renders identically on Windows, Mac OS 9, Mac OS X, and several flavors of Unix.

OTF

This is a file extension for OpenType fonts. See: *OpenType*.

overrides

In terms of styles, an override is a formatting option not specifically defined in the style assigned to the text, object, table, or cell. For instance, using the Cmd+Shift+I/Ctrl+Shift+I keyboard shortcut to apply italic to text is an override of a paragraph style in which the text is defined to be roman, or not italic. Overrides are indicated by a plus sign (+) beside the style name in Paragraph Style, Character Style, Object Style, Table Style, and Cell Style panels.

phablet

A mashup of the word's "phone" and "tablet," the word phablet identifies touchscreen devices larger than standard smartphones but smaller than tablets. Most phablets have screens measuring between 4.8 and 6.5 inches.

picture-book ebook

This is an alternate term for *fixed-layout ebook*.

pilcrow

This is a paragraph mark (¶).

poster

When working with multimedia a poster is the static image used to represent video, animation, or audio before or during playback. In other contexts, it may be a really large picture of One Direction, Zac Efron, or that *Hunger Games* guy tacked up on your daughter's bedroom wall.

posterization

The term *posterization* has many definitions in various contexts ranging from photography to basketball (check http://urbandictionary.com). In this book I've used it in the graphic-design sense, which means the process of reducing tonal values to create sharp-contrast, poster-like areas of color. Often the process of posterization is a negative consequence of tonal and color correction actions such as using Levels or Curves in Photoshop.

print replica

This is an alternate term for *digital replica*.

public domain

Referring to intellectual property rights, *public domain* is the total absence of intellectual property rights. A work of any type that is no longer eligible for copyright or trademark protection is "placed into the public domain," meaning that any member of the public may do anything she desires with the content, including, but not limited to, reusing the work with or without modification for commercial purposes. For example, many of the resources provided throughout this book's lesson files—particularly those from *The Wonderful Wizard of Oz*—are in the public domain, which enables me to distribute those files to you, and you to use them, without restriction or cost.

RAR

RAR is an acronym for Roshal Archive, a compression and archival scheme developed by Eugene Roshal. Like ZIP, RAR is a method for collection multiple files into a single archive file and compressing the original files so that the archive takes up less disk space than the files its contains. See also: *ZIP*.

raster

This means pixel-based, typically in terms of imagery, as opposed to vector or mathematic-based.

resolution-independent

Typically used in reference to imagery, this means that the artwork has no inherent resolution or reliance on pixels and will output to the highest resolution of the output device.

RSS

This is an abbreviation for RDF Site Summary, though just as often interpreted as Really Simple Syndication. RSS is an XML-based web content distribution format and method that "pushes" content to readers and their software rather than waiting for readers to voluntarily visit the website or other source of the content. It is the standard for such content distribution despite the emergence of would-be replacement ATOM. In epublishing, RSS is used in numerous places including as a means of pushing content into interactive magazines created with Aquafadas DPS and pushing newspaper and other periodical content into EPUB-based newspapers. See also: *ATOM*.

SMIL

An abbreviation for Synchronized Multimedia Integration Language, SMIL is a W3C-recommended markup language for describing and controlling multimedia content in a variety of digital publication formats. Although not yet widely used, SMIL has the potential to become a powerful component of digital publishing because of its nature of homogenizing audio, video, animation, and transcripts and closed-captioning from such multimedia so that they can be accessible to a large variety of devices, applications, apps, and technologies.

spread

This is what Mom lays out for Thanksgiving dinner. Also, any set of two facing-pages displayed on screen simultaneously.

subset

As used herein, this refers to font embedding. When fonts are embedded in any document—PDFs, interactive magazines, EPUBs, and so on—the entire font file is included, adding the font file's size to the overall publication size. With only a few fonts, this can dramatically increase the file size and transfer rate of digital publications. Subsetting was created to mitigate file size by including only the *glyphs* actually used from the font. For example, if a publication includes the letters *A*–*Y*, there's no need to include Z. Thus, the subset of the font, the letters *A*, *B*, *C*, and so on down through *Y* will be extracted from the font and included in the publication so that those letters may render correctly, but *Z* and any other glyphs not used in the publication but present in the font will be excluded from embedding.

SVG

This is an abbreviation for Scalable Vector Graphics and is a resolution-independent, vector-based, XML-based file format initially designed to supplant then Macromedia Flash as the dominant online vector graphics format. Although Adobe dropped out as one of the chief architects and proponents of SVG following Adobe's acquisition of Macromedia for, in large part, the Flash technology, the SVG format has continued to flourish, owing in large part to its status as open source. SVG is an important part of epublishing because it's the only vector-based format supported across all tablets and smartphones (iOS devices don't do Flash). Vector-based artwork in EPUBs must be in SVG format.

tall-screen video

As a consequence of the proliferation of mobile devices and consumers' predilection to shoot and watch video on these devices in a portrait orientation, as well as the fact that

most digital publications are created in portrait orientation, video that has been rotated 90 degrees from the normal landscape, wide-screen view is becoming very popular. Tall-screen video is video recorded with a taller-than-wide orientation, which fits very nicely into portrait-oriented ebook, PDF, and interactive-magazine pages.

type on a path

Type set on a path, or line that may or may not include corners and curves, follows the shape of that path. For example, a sentence placed on a spiraling line would flow from left to right along the spiral until the entire sentence is paid out or the line ends. InDesign and many other creative applications allow type to be set on a path to create what are often referred to as Path Type Objects or Type On A Path Objects. In epublishing, setting type on a path is particularly effective in children's books, educational volumes, and digital magazines.

URI

An abbreviation for Uniform Resource Indicator, URI is an address or string of characters leading or identifying a resource in a computer network including—and usually—on the Internet. URI and URL are often used interchangeably, though there is a subtle difference between them. A Uniform Resource Locator (URL) specifically supplies an address to a resource without naming it. A URI, by contrast, can be either or both a location and a name. Also related is a Uniform Resource Name (URN), which identifies or names a resource without providing a location for that resource. Thus, URI encompasses both URL and URN and is therefore the more generic term to use when the meaning can be either or both identifying and locating a resource in a computer network.

UUID

UUID is an abbreviation for Universally Unique Identifier, which is a string of characters used to provide a relatively unique identity to objects or, as used in this book, epublications. InDesign will automatically generate a UUID upon export to EPUB when a more specific identifying number such as an International Standard Book Number (ISBN) has not been provided. I say that the UUID is "relatively unique" because, as designed, there is no central system assigning and guaranteeing the uniqueness of the string of alphanumeric characters. InDesign will generate a unique UUID, but you can rely on its uniqueness only among other UUIDs generated by *your* single installation of InDesign on your computer. My copy of InDesign might generate the same UUID for one of *my* publications. Therefore, the name Universally Unique Identifier is a misnomer; it should be Locally Unique Identifier or Relatively Unique Identifier Within a Given Closed

Environment. Don’t rely on any UUID as being *actually* unique outside the immediate environment of the software and computer that generates it.

vanity press

A largely retired term once used to describe self-publishing. The term is derisive, implying that a self-publishing author is vain, usually because self-publishing was primarily performed by those writers whom publishers had rejected.

vertical video

This is another name for *tall-screen video*.

walled garden

A walled garden in the physical world is one in which the garden has been completely enclosed by a wall of stone, wood, shrubbery, or some other substrate. Plants cannot escape the garden, nor can the garden be invaded by plants that originate outside the wall. That concept has been applied to software, hardware, and epublications, as well, with the most famous example being Apple. Apple manufacturers the iPhone and iPad hardware, develops the operating system for both devices (iOS), and directly controls which apps and publications are allowed to be made available to owners of those devices. By controlling all aspects of the devices, including the content allowable on those devices, Apple maintains a walled garden. The iOS operating system and its features are designed to run only on Apple devices, preventing the plants from escaping the garden; by reviewing every app and epublication made available to iOS device users, Apple prevents plants that originate outside the wall from coming in without approval. Amazon, too, maintains a walled garden, though it’s to a lesser degree—think slatted fence surround. Devices like the Kindle Fire have access only to Amazon’s curated App Store, but apps from outside the App Store can be sideloaded onto the Kindle Fire even though Amazon could prevent that but apparently chose against it. Moreover, the same content available to the Kindle Fire is usually available outside of that device as well; Amazon’s ebooks, emagazines, enewspapers, video, music, and other content are available to users of non-Amazon devices and operating systems, often, depending on the content type, without the need to even use Amazon-owned assets beyond the point of purchase.

widget

A widget is an app (*applet* before popularization of the term *app*) comprised of a preconfigured chunk of code and designed to perform a specific task. For example, the Facebook Like button on a website is a chunk of HTML and JavaScript code provided by Facebook and pasted into the code of millions of other websites. It’s a widget that doesn’t

need to be configured by the user, merely copied and pasted. Widgets are also often employed in epublishing to add functions, behaviors, and dynamic content in a manner already figured out by someone else—in other words, widgets are the wheel you don't have to reinvent. Millions of widgets are available online to perform numerous functions on websites, mobile apps, and epublications, and many organizations create their own widgets for internal use, creating copy-and-paste functionality to ease workflow.

WOFF

This is an acronym for Web Open Font Format, a font format bearing additional metadata and designed to be embedded in a web page or other XML-based content and downloaded from a server to a web browser or other client as a means of enabling web and ebook designers to use a greater variety of typefaces in designs without fear of client-side font substitution. WOFF fonts are OpenType, TrueType, or Open Font Format compressed and encoded using special algorithms. Although WOFF is not yet an international standard, it has been published by the World Wide Web Consortium Web Fonts Working Group as a Candidate Recommendation. It is already supported by all the major desktop browsers, and support is rapidly spreading through mobile browsers and ereaders. See also: *OpenType*.

XHTML

This is an abbreviation for Extensible Hypertext Markup Language. XHTML is an extension to standard HTML that makes web pages more semantically standardized and organized based on an XML framework. HTML, prior to HTML5, which was built with standardization in mind, required a specialized markup parser for devices like web browsers to display as intended. Many offshoots and proprietary bastardizations of HTML evolved, which created a situation in which HTML pages would not reliably render the same across all devices. XHTML was devised to address such inconsistencies by wrangling web-page markup into a single, universal entity that was based on the accepted standard of XML. The result was that XHTML could be parsed by device that understood XML, which was almost universal by that point anyway, and it would display exactly the same across all such devices. Because of this cosmopolitan and consistent support for XHTML, EPUB and other digital publication formats require that XHTML, not HTML, be used.

XML

An abbreviation for Extensible Markup Language, XML is a markup language designed to be both human- and machine-readable. It is designed to tag, identify, and create a hierarchy from textual content. Those tags, identifications, and hierarchical

indicators can then be used to organize, modify, and style the content in any number of ways by applications, apps, and devices that recognize XML. The “extensible” part of the name refers to the fact that XML is built to be a foundation markup methodology from which both specialized and more generalized systems may later be developed, and many have. XML is the basis for XHTML, RSS, ATOM, EPUB, and even less obvious file formats such as those created by Microsoft Word, Excel, and other Office products.

ZIP

A ZIP file (extension .zip) is a compressed archive containing other files. The format was developed in the 1980s by Phil Katz and later placed in the public domain and is the world’s most widely used format for compressing and distributing a collection of files. So efficient and popular is the ZIP archival and compression methodology that it is incorporated into many other file formats, including Microsoft Word DOCX files, JAR archives, and even, as an optional compression algorithm, TIFF images. See also: *public domain*.