

A Quick Guide to Book–On–Demand Printing

by Roger MacBride Allen

*“Freedom of the press belongs to
the man who owns one.”*

—A.J. Liebling

This sample file includes the table of contents, and
excerpts from Chapters One and Two.

A Quick Guide to Book–On–Demand Printing

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Excerpts from Chapter One

Book on Demand: What, How, When, Why—And Who?

1. Introduction

The basic concept of printing books on demand is quite straightforward. The idea is to create finished printed material quickly, when and where it is needed. By printing only what is needed, and only when it is needed, the publisher can save a tremendous amount of money, and revise quickly and efficiently.

On a practical level, book-on-demand printing consists of using a mix of new and old techniques to print books in small print runs as they are needed. Typically, the book pages are produced on a laser printer capable of double-sided, or duplex, printing. The covers are printed on a color ink-jet or laser printer. The pages are then bound into the covers, either by one of several hand techniques, or with any of a variety of binding machines, and then trimmed to size with a heavy-duty paper cutter.

The techniques used to print the pages and covers for book-on-demand books are new and evolving rapidly. On the other hand, the binding and cutting operations are essentially identical to those that have been used in print shops for the last hundred years or so, albeit in somewhat more automated form.

On-demand printing is more expensive than conventional printing when measured on a per-copy basis. However, on-demand printing makes it possible to print books only when they are needed. Updated and revised or even customized versions of a book can be produced quickly. Because print runs can be fine-tuned, and because additional print runs can be done with little or no make-ready time or cost, the economics of book-on-de-

mand and conventional book printing are completely different. In situations involving short print runs, on-demand printing can be vastly more cost-effective.

Instead of having a warehouse full of a dated version of a book, a publisher can store an electronic version of the book in the computer, and keep it constantly updated, printing copies of the always-current information only when needed.

With book-on-demand, books need only be printed after they have already been paid for. The economics of this sort of “just-in-time” printing compare favorably to those of “just-in-case” conventional offset printing, which often requires that the publisher print many more books than are needed. Storage and shipping cost money, and because this is so, “just in case” printed books soak up working capital, merely by existing before they are needed. As often as not, they are stored, shipped, shipped back as returns, (or never shipped at all) and then discarded. There are many costs aside from printing that must be borne “just in case” someone needs the books later. We’ll explore this further in the next section of this chapter.

Because book-on-demand only prints books when they are needed, waste is cut back. It can thus wind up being cheaper and more profitable to print books using this more expensive processes.

As we shall see, there are large and small-scale versions of book-on-demand. The term “book-on-demand” can apply to a commercial shop using ultra-high-speed printers and automated binding equipment to bang out a hundred books an hour, or to someone in his or her basement who wants to run off ten copies of a book, and maybe is dreaming of something on a slightly bigger scale. This guide will discuss both types of work, but is directed more at the home workshop. We’ll also consider the various

ways people in the smaller– scale end of the market can get access to the hardware used by the larger–scale operations.

2. The Economics of Book–On–Demand Printing

What advantage does book–on–demand offer that makes it worth the trouble of doing it?

The core advantage is simple: it allows a publisher to avoid all economies of scale. This sounds totally counter–intuitive, but it really makes sense.

Conventional book printing is designed around the use of extremely expensive capital equipment (the printing presses) and very cheap raw materials (paper and ink bought at wholesale) to produce thousands of identical copies of the same book.

It is expensive to set up the equipment to print a book. It takes many of hours of skilled labor to design the layout, produce the plates used in offset printing, adjust the presses, and so on. That time and effort costs money.

To pull a number out of the air, let’s say it costs \$1,500 to set up to print 10,000 copies of a particular book. It might well cost that same \$1,500 to set up for a 3,000 copy print run, or a 20,000 copy print run, or a 100,000 copy print run.

Once the presses are up and running, the system is highly automated, and a massive printing operation can be managed by a relative handful of people. Obviously, that drives labor costs down. The wholesale cost of the paper, ink, and other materials that go into making a book are probably the smallest part of the expense of publishing most books. The cost per copy of additional copies is quite modest. Indeed, publishers worry more about the cost of storing books than they do the cost of making books.

All of the above is reflected in the rate sheets of commercial printing plants. Typically, they charge a flat rate or

hourly rate for setup, and then a per-copy rate that drops off sharply with the number of copies.

In short, it costs a lot to get set to print a book, but just a very small amount per unit to make more copies. Consider that book with the \$1,500 setup cost. If the additional cost-per-book for materials were, say, \$1.50, and we printed 1,000 copies, setup plus costs of the copies would be \$1,500 plus \$1,500, or \$3,000, or \$3.00 a book. If we printed 10,000, that would be \$1,500 plus \$15,000, or \$16,500, or \$1.65 a copy. That's a pretty tidy savings, and it ignores any volume discount the printer might offer.

These are made-up numbers, but they illustrate the sort of economies of scale offered in conventional publishing. Print enough copies of a book, and the books get pretty cheap to make.

But look at the numbers from the other direction. It's impossibly expensive to print just a few books. Go back to our costs of \$1,500 setup and \$1.50 per unit for materials, and think about printing five hundred copies. It costs \$4.50 a copy. Printing fifty would cost \$31.50 per copy!

Confronted with these sorts of numbers, and having the overhead of office rental, staff payroll, author royalties and so on, a conventional publisher won't even consider a book unless it has a chance to sell several thousand copies. A book that has something to say, but only to an audience of a few hundred people, can't possibly make sense to print.

Or consider the case of a book that would sell a hundred copies a month, year in and year out—a museum exhibit guide, for example. Such a book might be financially viable if one could print up a five or ten year's supply, so as to reach economies of scale, and then store them until they were needed. But the annual costs of storing that many books in a temperature-controlled, bonded, insured warehouse, complete with alert uniformed attendant, will quickly soak up any savings. (There are also tax reasons

that make it wildly expensive to keep a lot of inventory on hand, but let's not get started on tax law.) Even if you could store the books for free, a book that's been in a shipping carton for ten years isn't going to look like new merchandise.

Or suppose the museum radically changed its exhibit two years after you printed a ten-year supply of the guide? Or suppose ten years of inflation made the price printed on the cover wholly impractical? Or a new donor made a huge donation and had the museum renamed to honor his mother? Or suppose any of a dozen unexpected things happened to make the guides dated? In such cases, the expense, trouble and risk involved with stockpiling a large number of books would more than offset the savings realized by printing a lot of copies.

Book-on-demand turns all this on its head. It uses moderately-priced capital equipment (computers, printers, and small-scale binding equipment) and reasonably priced raw materials (paper, toner, adhesive purchased at retail or moderate discount) to produce books with a low setup cost and a moderate cost per unit (about \$1.00–\$5.00 per book). Economies of scale are minor at best, but the initial setup cost can be as low as zero. Because books can be printed one at a time or ten at a time or a hundred at a time when and as needed, there is no need to maintain inventory. Updates and corrections to text can be made more or less instantly, between one copy of the book and the next.

With the typical conventionally printed book, once the original print run is sold, the book is no longer available. Books *can* be reprinted, but most never are. It isn't worth the time, effort, and expense. With book-on-demand printing, a book can stay in print forever. So long as the book is stored on disk, a fresh copy can be printed out whenever an order comes in, whether that happens once a month, once a year, or once a decade. Aside from the trivial

expense of storing the computer file, the publisher can keep the book in “inventory” for something very close to free.

There is one other big factor to consider, however. Commercial publishers rarely own the press that manufactures their books. They let someone else pay for the \$10,000,000 printing plant. The publishers simply pay for the use of the presses.

Few book-on-demand publishers will be able to avoid spending substantial money on hardware. Unless you set up an absolute bare-bones operation that cuts out practically everything but glue, paintbrushes, clamps, and courage, (in which case you might spend \$100 or less) your initial capital investment will all but certainly run into at least a few thousand dollars. Your setup cost per title can be small, and your operating costs should be pretty low. But the first step can be a doozy.

3. Purposes of This Guide

This is *not* intended as an all-inclusive how-to-do-it guide. It is instead intended to give a basic overview of what’s involved in book-on-demand. It won’t give you all the answers, but it should equip you to ask the right questions. It’s more like a *what-to-do* guide, discussing what you need to understand and the tasks you’ll need to accomplish if you want to make books. You might not be an expert after reading this book, but you’ll be able to make a good start on book-on-demand printing.

Creating books is a complicated business, but much of what it involves will be fairly common knowledge to most people considering such a project. (For example, the reader is assumed to know what a word processing program is.) This book focuses on the things I found hardest to learn about, the topics where I really had to dig to find the information. There are lots of topics this book mentions

only in passing, or not at all, because they are discussed in detail in other, easy-to-find, books or other places.

We'll take a brief look at the business side of book-on-demand publishing. Setting up your printing operation—whether for business, charity or pleasure—will require a lot of hard-edged decisions about money. But we won't spend too much time on such matters. They are discussed in lots of books about starting your own business. This is a book about how to make books.

This book cannot provide an exhaustive report on every possible variation on book-on-demand printing. However, it will offer lots of leads on other sources of information for just about every topic it mentions. (See the *Names and Numbers* section in the back of the book. People, companies, products, and publications mentioned in *italic* on first reference are listed there with contact information.) As I wrote the book, I found that locating *sources* of information was 99 percent of the research battle. That accomplished, getting the information itself was duck soup.

This guide will help you decide if you're up to doing some book-on-demand work in your basement, in terms of finances, patience, mechanical ability, and so on. It will point you in the right direction for much of the research you need to do, and get you thinking about what hardware you do and don't need. It will discuss—briefly—various other means of getting published. Maybe book-on-demand isn't right for you. Therefore we'll discuss the alternatives that might suit you better.

I have deliberately left in certain somewhat redundant passages in this book, on the assumption that many readers will flip through and find the sections that interest them, but never read the book cover to cover, or else will read the whole book through once, but then, at some later date, check back on the items they found of interest. In order to

accommodate such readers, if a point is important in more than one context, it is mentioned in more than one context.

I update this book frequently, as I learn more and gain more experience in the field. The revision date for this book is listed on the publishing information page at the front of the book.

There are lots of other ways to produce the pages of a book besides the ones we'll discuss here. But for the vast majority of home book-on-demand printers, the best way to print pages, by a wide margin, is with a fast laser printer. This book assumes that is what the reader is using, although much of what is discussed, for example regarding paper-cutting and binding, will apply no matter what printing techniques (of those available to the home book-on-demand printer) are used.

* * *

I write science fiction novels for a living, and I have been working for some time to set up my own micro-publishing operation so as to give my older work a chance to find new readers. Writing and updating this guide helped me put my own thoughts about my business plan in order. It focused me on some of the decisions I needed to make, and experiments I needed to try out. In a sense, this book is a shopping list of the things I had to track down and figure out, including quite a number of issues I didn't think to consider when I first started out.

* * *

Regarding my own hands-on experience, I have done one form or another of book-on-demand printing, with limited to good success, for about a half dozen titles. I've written books, done book layouts, designed and printed covers, and cut and bound and trimmed books.

I've flinched as I realized the book was crooked in the cutter a half-second too late, moaned as the binder melted my spine lettering, rolled my eyes when I discovered that I

had the cover on upside-down and the pages in the wrong order, and sworn a blue streak when the pages fell out of my “perfect” bound book.

If you learn from your mistakes, then there can be no question but that I’ve had a lot of chances to learn.

Now it’s your turn.

Excerpts from Chapter Two

Publishing Realities and Publishing Choices

Before we get down to working with paper, glue, toner and ink, that, let's consider the arguments for and against book-on-demand. As it will be easier to judge if book-on-demand is right for you if you know what your other options are like, we'll take a look at many ways getting someone else to do the work of making books.

In this chapter, we will look at a number of different publishing alternatives in order to place book-on-demand in some sort of context, and to see what sort of other choices are out there.

I will explore these other options at some length in this chapter, because it is important for anyone considering anything beyond the smallest-scale book-on-demand operation to understand all the other ways there are to make books and get them to readers. If you want to dive right into the how-to part of the book, skip to Chapter Three.

1. Who Should Consider Book-On-Demand Printing

One answer to the above question would be: people who have worthwhile books to print, but who don't have (and perhaps don't want) a commercial publisher for the book. Another answer would be: people with books that have small but valid audiences, or books they expect to sell at a slow but steady rate over time, and/or books that might require frequent updates and revisions.

Any would-be book-on-demand printer needs to consider how he or she will sell or market or give away his or her books.

Who is going to want your books? How do you get the books to them? How much, if anything, will you charge for

them? Can you accept the financial risk, and the emotional let-down, if things don't work out? If you can deal with such questions realistically, and come up with reasonable, practical answers to them, then printing your own books might make sense.

2. Who SHOULDN'T Consider Book-On-Demand Printing

Who should stay away? For starters, all those whose main motive is the need to prove something to the powers—that-be who rejected their work.

Being rejected by mainstream publishers is not, in and of itself, an argument against printing your own work. If your book has been turned down by every publisher in New York, but you want to print copies so people can read your work, that's one thing. Print the copies, sell and distribute them, and enjoy yourself.

But if you want to print copies in order to show up all those smart-aleck editors and publishers, if you're fantasizing about making the big publishing houses come crawling to you after your self-published book has sold a million copies, forget it. Either scale back your expectations, or consider another hobby.

In the old days, the only option available to an egomaniac with an unpublishable manuscript was a vanity press, as discussed a bit further down in the chapter. Nowadays, there are a whole range of options for producing books no one wants to read—including book-on-demand printing.

Book-on-demand might be a novel way to manufacture books, but it doesn't solve your distribution problems, and doesn't make anyone want to read your words. Unless you do your homework very carefully, and market your book very well, and push very hard, you're not going to sell any more books via book-on-demand than via the vanity press route—and vanity press basically doesn't sell any books at

all. If you're not careful, instead of a bunch of expensive and unsalable books cluttering up your basement, you'll have a bunch of expensive and unused printing equipment cluttering it up.

3. Is Doing Book-On-Demand Worthwhile?

Gathering the equipment, learning the procedures, and simply doing the job of printing and binding your own books is a lot of work, and will cost you money, maybe a lot of money. What would make such an expenditure of time and money worthwhile *for you*?

Is untold wealth the only thing that's going to do it? Is making a buck in your only motive for doing book-on-demand printing?

Or perhaps money is not any part of what motivates you. You might want to print the books and give them away to friends, relations, enemies, random strangers, co-workers, and tollbooth attendants. Maybe you will derive satisfaction from spreading your words around, rather than from making a profit. Or maybe you just want the satisfaction of putting a book into print, the pleasure of making something yourself.

Most people will fall somewhere between these two extremes of doing it strictly for the money and strictly for pleasure. That's about where I am in regards to doing editions of my old books. My older titles have had a fair shot in the marketplace, for the most part. I don't expect to sell thousands of each of them. But I would like to have them available to readers who are interested. If I can turn a dollar on the project, or at least break even, fine. But if making money were my primary goal, I'll try and come up with something a bit more practical as an investment. I'll regard my reprint venture as a success if *some* people buy the books, though I don't expect millions to do so.

And besides, I'll find other uses for the hardware. For example, many publishers do Advance Reading Copies (ARCs) of their books. These are circulated to reviewers, and to overseas publishers who might be interested in doing foreign editions. But publishers don't do ARCs of every book, they don't get ARCs to everyone the writer would want, and they often get them out too late to do much good. I decided to solve those problems.

Without going into too many details, there was one book of mine where I went all out getting my own ARCs done. I hired a printer and paid top dollar and rush fees and got a very glitzy cover done up. From start to finish, it cost me something like \$1,800 to get fifty copies done, and I simply gave those fifty copies away—prior to publication of the commercial edition. That sounds like a money-losing proposition, but I gave the ARCs to foreign publishers, to reviewers, to editors, and so forth. The early visibility did me a lot of good, and I made my money back many times over, mostly because the advance reading copies helped sell foreign rights to the book.

There are lots of ways books can be successfully published, and yet not make money. There are plenty of good reasons for doing books that don't involve trying to sell them at a profit. You might have a parts catalog you need to print up, or an employee handbook, or a book of family remembrances, or a cookbook your church wants to put out. Such a project might never make a dime, and yet be a great success. Or you might know for certain that you have *the* book for a certain market, and that you can sell as many books as you make for forty bucks a throw.

Whatever your goal, do your homework. Study the market. (Even the market for free books is not unlimited.) Judge what the realistic probabilities of success are. Define what you would regard as success. Figure out how bad

failure could be, and ask yourself honestly if your wallet (and your ego) could handle such a failure.

For most people, spending the time and effort to get set to do book-on-demand is probably not worth it for a single title. If you expect to do several titles over time, it becomes a lot easier to justify the investment. Figure out how many titles you expect to publish.

Nor is there any reason to assume that a book-on-demand printer has to be a private individual. Indeed, a book-on-demand operation might make more sense connected to a school or a library, so it was available to community members who took a training course. (And have those community members sign release forms before they get near the 350-degree hot glue and the two-foot-long razor-sharp paper-cutting blades!) A writer's center, a community center, a retirement home full of people with memoirs to write, might all be worthwhile venues.

Once you're set up, printing and binding your own books is fun, satisfying, and not all that hard. But it requires a substantial investment of time and money to do it properly. Consider carefully before you go for it.

end of excerpts

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