How To Write A Tech Book

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To start your first tech book, you need a few things: an idea, some expertise in that idea, and some writing ability. At least, that's all I started with. Actually writing the book takes a lot of work and is different from other kinds of tech writing, so perseverance and a willingness to learn new things help too. Also, just because you are knowledgeable about a subject, doesn't mean you are good at explaining it in clear, simple language, so humility and empathy also come in handy.

The idea is the seed that will ultimately grow into a book. You might have expertise in any number of areas that might be worth writing about, yet how can you tell which ideas might work for a book and which won't? In this chapter, I will start with how to come up with book ideas based on your experience and background. Next I will explain how to weigh these ideas and decide whether they might be suitable for a book. Whether you intend to go with a traditional publisher, or self-publish, there are also market considerations to factor in.

1.1 My First Book Idea

All books start with an idea, yet my first book wasn't even *my* idea. I was just in the right place at the right time. I was president of a local Linux Users' Group, and back then, Linux could be rather challenging to install and get working, especially on recent hardware. Linux Users' Groups would host events called Installfests where people could sign up, and bring their hardware, and have an expert help them get things working.

The group member who ran the Installfest decided to assign the most challenging sign-up to me: a very recent computer that needed to dual-boot

with a recent version of Windows. That Windows install was on an NTFS partition that needed to be resized so Linux could fit–all things that were technically possible with Linux in that era, but were pushing the cutting edge.

At the time there was a Linux rescue disk called Knoppix that was at the cutting edge of not just rescue disks, but Linux support in general. Klaus Knopper (its inventor) had figured out all of these automated ways to detect the hardware that was on a particular system and configure Linux to work with it out of the box. You could often boot Knoppix on a system that a traditional distribution wouldn't touch, and everything would just work. In addition, the live disk included all sorts of tools (and allowed you to install many more) that made it the Swiss Army Knife of live disks.

I had been using Knoppix heavily both to rescue systems and test their Linux compatibility, and it had become an important tool in my toolbox for Installfests. It was the first tool I reached for when I was presented with this cutting edge hardware with a challenging install. I figured this task would take me all day, yet Knoppix detected and supported all of the hardware out of the box. I was able to use its recovery tools to resize the NTFS partition and install Knoppix onto the computer as its Linux OS in dual-boot mode alongside Windows, and the system was out the door in under an hour.

Well, the Installfest coordinator happened to be a sysadmin at the tech publisher O'Reilly. He saw some internal email discussions from an O'Reilly editor that they wanted to publish a book about Knoppix and were looking for someone to write it. He remembered what I accomplished at the Installfest and came to me one day asking: "Hey, do you want to write a book?" I hadn't written much more than a book *review* at the time, much less a book, but I thought about it, and not one to pass up an opportunity, I said "Sure!" He pointed me to O'Reilly's documentation on how to prepare a book proposal and pitch a book, I followed the instructions, they accepted my proposal, the book was published, and the rest is history.

1.2 Finding Book Ideas

You likely won't have my luck with a publisher dropping a book idea in your lap. Instead, your idea will probably come from within your own expertise, professional experience, and interests. Yet tech publishers are always looking for the next big thing, along with authors who can write about in it. In fact, if you do establish a relationship with an editor at a tech publisher, you might find yourself meeting with them a couple of times a year to chat through

current tech trends, and what you have been working on professionally. So where do you find those ideas that will get your foot in the door?

1.2.1 Professional Experience

One of the first places you should look for writing ideas is your professional experience. After all, a main focus with tech books is to teach someone how to use a particular piece of technology, learn a new framework or programming language, or otherwise acquire a new skill for their professional life. The largest markets for tech books are in the professional world, because technology moves so quickly that whether you are just starting out or have been working in technology for years, you will routinely find yourself needing to "re-tool" and learn something entirely new for your job.

Also, the pace of change in technology makes it more challenging for more traditional vocational education, such as at trade schools and universities, to keep current. Tech books help fill the gaps. They update and build upon the foundation of knowledge someone might learn at school. Most people end up learning how to use new technology from on-the-job training, conferences, and books and documentation on the subject.

Consider what you have been working on at work. Did you find documentation lacking when you tried to figure out how to use a new framework, write software with a new programming language, or use new features in an application or a new OS? Do you have hard-won knowledge that you have earned from building things that move beyond the bounds of existing documentation? All of this unique expertise is fodder for a book idea.

1.2.2 Past Publications

While you don't have to be a professional writer before you publish a book, it doesn't hurt. If you do write on tech topics, whether in magazines, blog posts, documentation, or other avenues, that writing is a great source for book ideas. Many books have been born out of a series of blog posts or magazine articles that did a deep dive into a topic.

Also, if you do have a platform for tech writing, it can be a good place for you to test out ideas you are considering for a book. It provides you a way not only to gauge how much you have to say on a topic, but gauge public interest on the subject. In addition, it gives you a place to point publishers who are considering your book proposal, as they often want to see writing samples (which I will cover in Chapter 3). If you happen to have a writing sample that

is on the topic you are pitching, all the better.

Finally, depending on the copyright terms you have in place on your tech writing, you may be able to re-use this writing in your book and get a head start on the process. Check any contracts you have in place, but many outlets only request first publishing rights, with the author retains ownership over the work beyond initial publishing. I have personally reused relevant Linux Journal articles in my books–one of my own books, *The Best of Hack and /: Linux Admin Crash Course* is actually a collection of Linux Journal articles I wrote.

1.2.3 Public Persona

There is a lot of crossover between tech book authors and people who have some sort of public persona, whether it's from speaking at conferences; hosting popular podcasts, vlogs, or newsletters; or otherwise maintaining a large social media following. Often this is a sign that you have something to say that is special and popular. Your most popular talks, podcasts, or social media threads are good places to look for potential book ideas.

Another benefit to finding ideas from your public persona is that when it's time to promote your book, you can use that other platform to present it to the same people who liked the idea to begin with. Word of mouth is incredibly valuable when launching a book, and those people will gladly help spread the word. Also, there is a feedback loop when it comes to these sorts of ideas. You will find that in the process of writing a book on a subject that you gain an incredible amount of expertise. This expertise in turn will inspire new conference talks, new podcasts, new newsletters, and new social media posts.

1.2.4 Personal Interests

While professional experience is a great source of ideas, many people also have active and unique personal interests in technology. Your hobbies, personal projects, and other things you have set up at home are great sources for writing ideas in general. After all, not everyone happens to work at a place that uses cutting-edge or trendy technology, but that doesn't mean you can't experiment with it on the weekends.

Also, some people's most book-worthy projects are done outside of work. Many free and open source projects are like this, in addition to many of the interesting hardware hacking projects you find online. If you find some tech so interesting and engaging that you do it for fun, there's a good chance you

others would love to learn how to do it too.

1.2.5 Peers

If you still aren't sure what ideas you should write about, ask your friends, family, and co-workers. This is particularly useful for ideas you may have dismissed as being uninteresting to others. You may think it's not worth writing about a topic if you already know it well and assume everyone else does too. You may be surprised to find that an idea you have dismissed as uninteresting is something your peers would love you to write about.

Even if you haven't dismissed the idea entirely, peers are a great sounding board when you are sorting through a series of book ideas. For instance, this book was largely inspired by chatting with peers about all of the things I had to learn to write my previous self-published book. A number of people asked me whether I was going to write down everything I learned, and after the second or third request, I decided there might actually be a book idea there.

1.3 Which Ideas Work for A Book

There are personal, practical, and market considerations when weighing which ideas might be book-worthy. You should be able to talk on a subject with authority and at length, for starters. Writing a book is great, but selling one is even better, so you also have to factor in the timeliness and market conditions surrounding your idea. I will go into all of these factors and how to weed through your idea to find book-worthy ones in this section.

1.3.1 Expertise and Authority

The first thing to consider when weighing an idea for a book is whether you have sufficient expertise in the topic to write on it with authority. This is tricky, because some people have self-confidence that exceeds their ability, while other people face "imposter syndrome" at every turn. So how much experience and expertise do you need to write a book? Beyond that, how can you judge expertise for yourself?

For starters, let's set the upper limit. You do *not* have to be the foremost authority and expert on a topic to write a book about it. I have never been the foremost authority on just about any subject I write about, in particular any of the books I've written. Here's the thing: just because someone is an expert on a topic, it doesn't mean they can write about it clearly and simply. Instead,

what is more important is that you have enough experience with a topic that you can explain it clearly to someone who doesn't understand it.

> **Note:** In fact, you don't even necessarily have to understand how to accomplish everything in your book outline at the time you start writing. Most of my books, in fact, contained some sort of "research and development" work where I knew ahead of time that I would need to learn how to do something new and then document it.

Let's also set the lower limit. You shouldn't pick a topic you have only passing experience with. While you don't have to be an expert, you also shouldn't be a beginner. There are some exceptions to this rule. If you are professional tech writer with many articles and books under your belt, you might have developed the talent of gaining expertise in a new topic in a short time. You may also have the self-awareness to understand whether this new topic is something you could pick up. Finally, professional tech writers ideally develop the ability to distill complex topics into simple language, regardless of the specific topic, which is a skill they can more easily bring to bear for something new. But if this is your first book, stick with something you know.

So how much expertise do you need? First you need to understand a topic well enough to explain it to a beginner. The majority of your book should describe things you have already done before, ideally many times. While you may not have perfect understanding of everything at the outset, and you will make mistakes that will be caught in the tech edit phase, you should have a reasonable level of confidence in the correctness of your advice and examples. If you weren't an expert on a topic when you started a book, you might be pleasantly surprised to find yourself an expert at the end–there is nothing like teaching someone else a topic to increase your own understanding.

For instance, when I first had the idea of writing this book you are reading, I felt confident that I had enough experiece to write on the subject, because I had gone through the professional publishing process many times with different publishers, been involved in a number of other books as a technical editor, advisor, or contributing writer, and gone through the self-publishing process twice. If, on the other hand, I had only published one or two books with a single publisher, or only self-published, I would have either passed on the idea, or severely limited the book's scope to match my experience.

1.3.2 Book Length

Your average tech book is around 150 pages at a minimum, with larger books sitting between 300 to 500 pages. When considering book length, it's important to realize that more pages doesn't equal a better book. In fact, with tech books, often the better and more useful books are the ones that can cover a subject in fewer pages. Thicker books often have a lot of unnecessary filler content put there intentionally to make them thicker.

All that said, when considering a book idea, it is important that you have enough to say on the subject to create a book's worth of writing. A decent rule of thumb is that your average page in a normal-sized tech book contains between 400 and 500 words on average (varying, of course depending on the page dimensions, font size, margins, and other factors). So on the low end you would need to write approximately 60,000 words to fill out a 150 page book. By comparison, most tech articles like the kind I wrote for Linux Journal, are a minimum of 600 words, and normally twice that, with a 2000-word article starting to venture into the realm of splitting it into multiple parts.

One way to gauge whether an idea is large enough to fill a book, is to go through the process of creating the full outline, which I explain in more detail in Chapter 2. Once you split up and organize a topic into chapters, sections, and subsections, you get a better idea of how big the book will be once you flesh it out. If you are still unsure, you may even want to go as far as writing a sample chapter. It's not wasted effort, since most publishers want a sample chapter along with an outline as part of your book proposal. After writing your sample chapter, do a word count and calculate the approximate page count, then estimate how long you think the other chapters in your outline will be by comparison.

1.3.3 Timeliness and Longevity

One thing that makes technology books a challenging and different market from other nonfiction book categories is the rapid pace at which technology changes. Where cookbooks, self-help, diet, or how-to books might change over time to adapt to popular trends, they also tend to have a longer shelf-life and a slower pace of change, compared to technology. Tech books, on the other hand, have to balance covering topics that are cutting edge, change rapidly, yet are also in wide enough use that there is a market of people who want to learn about them. Books are intended to be a longer-lasting medium compared to articles, yet tech books often cover topics such as programming

languages or operating systems where syntax and instructions might change dramatically every few years.

All of these considerations factor into any idea that might become a tech book. Publishers tend to want a balance between topics that are cutting edge enough that there aren't already a flood of books on the topic, yet won't be out of date by the time you finish the book. A winning tech book idea needs to strike the right balance between timeliness and longevity.

Timeliness

Your book idea should cover technology or its applications that are timely and not out of date. A great question to ask yourself is: "why this book, and why now?" Your idea should be popular enough that readers will want to learn about it, and new enough that there aren't many (or any) books about it. A good candidate is technology at the beginning of its adoption curve, where early adopters have started using it, yet it is displaying some degree of maturity and is starting to attract more mainstream attention. Technology at this phase in its lifecycle tends to need good documentation and guides written for more mainstream readers.

In some cases timeliness has more to do with a popular application of a technology, than the technology itself. For instance, while there are plenty of general-purpose books on the Python programming language, there are also more focused books that discuss using Python for specific purposes, such as for security or gaming. Your book idea may apply an established technology in a novel way, or solve a novel but widespread problem.

Longevity

It is reasonable to assume that your first book might take you a year or two to complete if you are writing it in addition to a full-time job. You will need to factor in that time against the rapid pace of technology when considering your book idea. Otherwise it won't still be relevant by the time you complete the book.

Publishers also value longevity for their tech books, as revisions can be expensive and time-consuming. Plus, they want to make sure they recoup the investment in the first edition before they consider a second. If you want to publish with a traditional publisher, they will want assurances that your topic will still be relevant a couple years from now.

You might think that this means you should pick technology that is brand new, yet technology that is *too* early in its lifecycle and undergoing rapid

changes may be challenging to write a book about. That doesn't mean the idea won't work, but it may mean you need to factor in time for rewrites and updates near the end of the process. For instance, when I was writing *Ubuntu Hacks* we tried to time the completion of the book to be after the feature freeze for a particular release so we could be reasonably sure the features we were writing about wouldn't change before the book was published. Even then, there were a few changes that slipped in during the tech review phase that caused us some rapid rewrites.

1.3.4 Market Research

Finally, when vetting your ideas, you should consider the current book market. Whether you intend to self-publish or go with a traditional publisher, you should be aware of what other books on the topic are out there, their age, and how they have done commercially.

No Books On The Market

First, check whether anyone else has published a book on your topic. If no one has, this could either be a good sign (you are early with the idea and could corner the market), or a bad sign (publishers don't think the market is there). How can you tell the difference? If your idea is about an emerging, cutting edge technology (or emerging use for an established technology), you might be on to something.

No other books might be on the market yet, simply because publishers haven't gotten wind of it. It's also possible they are aware of it and are actively looking for an author, in which case they might be ready to accept a pitch. On the other hand, if your idea is based on long-established technology, or very fringe use cases, it could be that other publishers have considered and passed on the idea.

Ultimately if there are no books on the market for your idea, the best way to gauge interest in the topic is to go through the process of writing a book proposal and then identify and pitch one or more publishers, which is covered in Chapter 3. Going through the process to prepare and give a pitch will be valuable in proving your idea to yourself. Whether publishers accept or reject your pitch, they will likely give you some valuable feedback about the market for the idea.

Existing Books On The Market

If there are other books touching on your idea, don't reject the idea immediately. After all, each major tech publisher tends to have one or multiple books on certain popular topics. In fact the more popular the topic, the more likely each publisher is to have multiple books on the subject. What matters is how your book idea would fit in with any existing books on the subject.

If there are other published books on the subject, review their tables of contents and ask yourself how you would approach the topic differently. What would be unique or better about your book that would cause others to prefer it and cause it to stand out among the competition? Perhaps the existing books are out of date, or maybe you would organize your book differently. Perhaps you are more of an established authority on the subject than existing authors. Having a good answer to this question will also help you when pitching to publishers, because they typically expect you to discuss "comps" (comparable books) in your proposal.

When reviewing the other books on the market, check their publication dates and sales rankings. Publishers have access to detailed data about book sales through retailers via a subscription service called BookScan, but you will probably just have to seettle for the rank on Amazon. If the books are all quite old without new editions, it could be a sign that the first book's sales were never high enough to justify an update, or that interest in the topic has waned. On the other hand, if you have a new approach to the topic, or there is a recent development in the technology, the fact that the existing books are out of date is less of a concern. Again, the fact that publishers have access to BookScan data means you might get more data about the current market for your idea when you pitch.

1.4 Moving Past the Idea Phase

Ultimately, it can be difficult to know whether an idea works for a tech book without moving past the idea phase and putting some work into the idea. In the next chapter I will explain the outline process, which will help you refine your idea and get it into shape.

Even if you pitch publishers and they reject your idea, it doesn't necessarily mean the idea is bad or you would be a bad author! It could simply mean that they aren't willing to take the financial risk of devoting their resources to it. If you still believe in your book after publishers have passed, and are willing to

put the work into it, you can always try the self-publishing route.