Self-publishing, LATEX, and Markdown

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Abstract

Considering LATEX plus markdown for serious self-publishers — possibilities and challenges. Crying need, promise on the horizon, but much work to do.

1　introduction to self-publishing

Step into your virtual time machine. Zip back to the much-storied age of expatriate Left Bank writers in Paris. Meet and greet the artisans, craftspeople, and marketing specialists toiling to bring *Ulysses*, say, to the reading public. Drop into the typesetting shop churning out galleys. Imagine the sound of clanking brass matrices; smell of molten lead.

Now, flit forward. 2019. Bowkers tells us that 1.68 million ISBNs were issued to U.S. self-publishers in 2018, up 40 percent from the year before [1]. Wordsrated tells us that as of 2022, more than 300 million self-published books are sold each year [2].

Here's the thing. A self-publisher is an army of one striving to publish and market books single-handedly, that is, to functionally replicate the Shakespeare and Company workflow that brought us *Ulysses* and so many other wonderful books of the time.

Writing a book is challenge enough. But self-publishers soldier on under a slew of hats — author, development editor, copy editor, book designer, type-setter, proofreader, publicist, book sales rep, book-seller, . . .

A remarkable number of indie writers manage to launch and market their books within constraints of shoestring budgets with zero line-items for freelance consulting help.

For the intrepid self-publisher it's safe to say: *Time is her most precious asset.*

The personal computer and the Internet are indispensable tools that make self-publishing possible. For the vast majority of self-publishers, I'd venture, it's the writing that counts. Knowing which GUI icons to click to produce the PDF and HTML files they send off to KDP is all they care to know about the black magic of bringing their books to folks they hope will buy and read.

But here's the downside — all too many poorly designed and formatted books that pop up on Amazon and elsewhere give self-publishing a bad rep on the street.

Muse away — 300 million self-published books sold each year. That's a staggering number of titles eagerly seeking readers willing to shell out the cover price.

How many book sales lost, one wonders, due to amateurish book design and typography? How many hopes and dreams crushed?

2　In my humble experience

I'm a self-publisher. Life-long book lover. Writing is the core of my checkered career in magazine publishing, corporate communication, academia, and software development. I'm a sloppily organized generalist striving at publishing tasks that demand meticulous attention to minute detail.

At this point I've self-published two novels and a technical programming book — all available on Amazon, the programming book also available on Leanpub. I have more books in various stages of development; fear that there's not enough time left in my life to bring them all to print and screen. *Time is my most precious asset.*

This, then, brings me to LATEX.

I typeset my novels with LyX. Found LyX comfortable and efficient. Novels turned out well enough with default LyX settings. I set out to write the programming book in LyX. But code boxes looked atrocious. LATEX consultants Amy Henderson and Kathryn Hargreaves bailed me out.

I needed to stand on my own two feet so I dove cold turkey into LATEX — much appreciated the creative potential for book styling, but learned quickly that tedious text markup was not congenial with my clumsy fingers and skip-about mind.

In all likelihood I would have pushed LATEX to not now, maybe not ever.

The discovery of Vít Novotný's LATEX markdown package was lightning out of the blue. I knew markdown from software development experience — loved the simplicity and readability.

Markdown! I can have my cake and eat it too.

So I set out to write a book about LATEX markdown for self-publishers.

3　Markdown

Now, more than a year of hard work later, the book is 95% ready for launch — nonfiction totally composed on a plain-vanilla text editor, marked up for styling with markdown and, with generous help from Vít and Tereza Vrabcová, styled with LATEX. But, I decided to defer publication. Why? I don't understand the templates. On me and my inexperience, yes. But the templates feel like a tech-stretch too far for tech-wary self-publishers.

Here's what I've learned plus a few no-doubt naive thoughts on how LATEX and markdown can inspire self-publishers to publish more beautiful books:

- Markdown imposes minuscule cognitive friction. The author can efficiently mark up work for styling simultaneously with creative composition. A big productivity win.

- The markdown package is still a work-in-progress, but quite productive for simply-styled works of fiction and nonfiction.

- There's a disconnect, however, between the productive efficiency of the current version of markdown and the book styling potential of (LA)TEX.

- The (LA)TEX ecosystem is arguably too vast and daunting for the average self-publisher, but with will and work this can be overcome with benefits to all...

4 Will? Work?

Who has time for that?

Actually, it's a matter of bringing work that's already business as usual across the broad TEX community into tighter focus. It starts, I believe, with a question: "What can we do to make (LA)TEX-based workflow for book publishers as efficient and productive as possible?"

Note that I've broadened the constituency beyond self-publishers to include indie and traditional publishers as well. Here, however, I'm mainly thinking self-publishers.

There are opportunities here for many across the greater (LA)TEX community to contribute experience, insights, technical know-how, and sound pedagogy.

So let's don our virtual reality glasses to consider the competencies and needs of Cindy, Marcos, and Sophia — fictional self-publishers all.

Cindy is a talented 22-year-old single mother striving to earn more by self-publishing romance novels. Her PC runs Windows and Word. She brings several years of social media engagement to her self-publishing venture.

Marcos is a 36-year-old software engineer. He spends his working day developing code on a Ubuntu Linux workstation. His ambition is to write the definitive work on Haskell for game programmers.

Sophia is a tenured astrophysicist with considerable LATEX competencies hard-earned while writing her thesis. She needs an up-to-the-minute textbook for her sparsely attended graduate seminars. Traditional textbook publishers across the board tell her that the potential market is too niche to touch.

Our core question now boils down to this: "How can we help Cindy, Marcos, and Sophia publish commercial-quality books?"

I see three areas worthy of thought and attention: outreach, tools, documentation.

5 Outreach

All three of our self-publishing avatars need to understand:

- the principles and benefits of competent book design and readable typography;

- that LATEX offers a superior typesetting option;

- how to install a TEX distribution, likely TEX Live, MacTEX, or MiKTEX; compose with markdown; and style with LATEX.

It seems evident that, given the vast population of self-publishers, the Internet and social media are the only wheels in town. We need crisp, clear how-to blogs and tutorials that invite self-publishers to experiment with markdown and (LA)TEX and guide them to quick and dramatic success.

6 Tools

Two or perhaps all three of our avatars need to install TEX Live. Indeed, they need to know how to update TEX Live every year to keep abreast of technical and security concerns. And this, in my experience, is a challenging obstacle.

In effort to serve every popular operating system and every niche in the LATEX ecosystem, TEX Live installation docs require meticulously close reading and confident computer skills. Contrast with MS Word, which comes batteries-included with the PC, and Ubuntu Linux which installs software with a single command "`sudo apt install myprogram`".

A second concern is that the full TEX Live system installs several GB of files on a poor author's hard drive, including all too many packages that she'll never in her lifetime use.

Turns out that there's a promising mitigation, that is, TEX Live schemes [3].

6.1 Schemes

Schemes are subsets of the full collection of TEX Live package offerings.

Karl Berry has taken the first step by creating a TEX Live scheme specifically dedicated to book design, styling, and publishing (`scheme-bookpub`). The goal: significantly reduce installed hard disk footprint (180 MB), pave the way toward more intuitive installation, and provide the foundation for a welcoming and friendly LATEX ecosystem for self-publishers.

Peter Flynn and Vít Novotný have contributed package ideas. *TUGboat* readers can contribute by reviewing the selection of packages and adding their own must-have packages related to book publishing.

6.2   Dedicated website

But we need more to welcome in self-publishers. So I further contend that we need a website under TUG auspices explicitly devoted to (LA)TEX in book publishing. The website must be simple, attractive, and engaging. It should provide dead-simple, clear, and concise TEX Live book scheme download instructions as well as links to tutorials and resources.

We have a domain: `texlibro.net`; work is in progress. Our hope is to bring up a beta site by the end of October.

6.3   The LATEX markdown package

The LATEX markdown package in my view is worthy of center stage in book publishing workflow. But first, we need an elegant solution to a major disconnect.

A beautiful book harmonizes three elements — content, structural design, and page layout. Markdown facilitates composition of content. LATEX facilitates structural design and, arguably, page layout. But in my experience there is a missing link — clean and elegant harmonization between these two realms.

HTML incarnations of markdown seamlessly interface with CSS — a standardized and extensively documented digital page styling language. Is such possible for (LA)TEX plus markdown?

Vít Novotný has proposed several technical fixes to bridge the gap:

- Markdown options
- Referrers
- Referrer prototypes
- Themes
- Snippets

To my limited understanding they each show promise in their own way. But can I integrate them into my workflow? To do so, it seems, I need to have deep experience with TEX, LATEX, markdown intricacies and, arguably, Lua. I hardly know where to begin; I do know that all too many self-publishers would throw up their hands.

Naive thought: HTML has a simple bridge to CSS that cleanly separates content from structure and style. CSS, in turn, is a fairly easy to learn styling language. So, question, is a similar innovation possible for LATEX markdown and LATEX?

This brings me to documentation.

7   Documentation

The TEX ecosystem is extensively documented in books, websites, tutorials, and forum snippets.

But in my experience it's overwhelming. Simple formatting question? There's no end of outstanding info and guidance out there. But where to start?

How to separate sheep from goats from inside-TEX-baseball? You've no doubt been there, and know what I mean.

As noted earlier, self-publishers care about their words and how to publish their works as efficiently as possible. They need concise and well-structured how-to tutorials with recipes they can follow along and implement to experience eye-opening success.

We need models for such tutorials, many tutorials to cover the book design and formatting challenges of fiction, nonfiction, and academic books, and a well-organized, curated, portal to this font of wisdom, experience, and how-to lore. The website proposed above would be the perfect portal.

Indeed, we need more — a few good books that skip over history and the inside-TEX-baseball to inspire the imagination and creative energies of Cindy, Marcos, Sophia and the countless other self-publishers struggling with book publishing challenges of their own.

Here's where LATEX professionals and corporate publishers can step in — by contributing know-how; sponsoring the work outlined above.

Yes, there's much work to do. But if it enables future literary talents in the tradition of Joyce, Hemingway, and Fitzgerald to bring beautiful books into the world, then it's well worth the effort.

References

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[3] The TEX Live Guide — 2022, "Selecting what is to be installed". `tug.org/texlive/doc/texlive-en/texlive-en.html#x1-240003.2.2`

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