

SHORT ANALYSIS

The Case for PubPub

Long title	The Case for PubPub
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Description

In 2019 researchers at Simon Fraser University set out to catalogue the world's scholarly publishing platforms. They restricted themselves to open source projects, and yet still identified over 50 projects to produce and host scholarly journals and books. The platforms range from established (like Open Journal Systems) to fledgling (like Rebus Ink), and everything in between. Despite the team's valiant efforts, it's hard to make any comparative sense of the software landscape, given the sheer congestion. For would-be publishers, there is paralysis in abundance.

And new platforms keep emerging, with Octopus and ResearchEquals joining the already crowded ranks. What to choose?

I want to make the case for <u>PubPub</u>, a flexible web-based platform hosted by a nonprofit, <u>Knowledge Futures Group</u> (KFG). The software is the brainchild of <u>Travis Rich</u>, who wrote his 2017 MIT dissertation on PubPub and then co-founded KFG, first within MIT and then as an independent nonprofit. The program he helped build is, in its way, a complete rethink of scholarly publishing—digital first, yes, but unconventional across the board. The design ingenuity is matched by a robust commitment to an academy-led publishing ecosystem. "In our vision of the future," reads the group's <u>mission statement</u>, "knowledge communities play a lead role in building and maintaining our knowledge systems, reclaiming territory that was ceded to proprietary solutions." In a thousand small but important ways, PubPub is the nonprofit David to, say, the profit-hoarding, data-hoovering Goliath that is Elsevier's <u>ScienceDirect</u>.

Still, PubPub's not for everyone, particularly if you're wedded to the PDF, or prefer to roll your own server. But many of us want to dethrone the PDF, and for us the prospect of handing off server maintenance is more relief than limitation. It's telling that the Simon Fraser team, when they set out to publish their <u>report</u>, selected PubPub.

Choosing PubPub

In 2019 I helped launch an open access, "scholar-led" publisher, <u>mediastudies.press</u>. We were inspired by a handful of nonprofit, OA presses run by academics, like <u>punctum</u> and <u>Open Book Publishers</u>, who had banded together as the <u>ScholarLed consortium</u> the year before. The shared ideal is to provide an alternative to commercial publishers and, more broadly, to help build out publishing infrastructure to serve the academy rather than shareholders. The ScholarLed presses reject the prevailing method of financing OA books—the author-excluding book processing charge (BPC)—in favor of <u>direct support</u> from libraries and other funders. Like its scholar-led peers, mediastudies.press is a mission-driven enterprise, and we vet our core software with the same goals in mind.

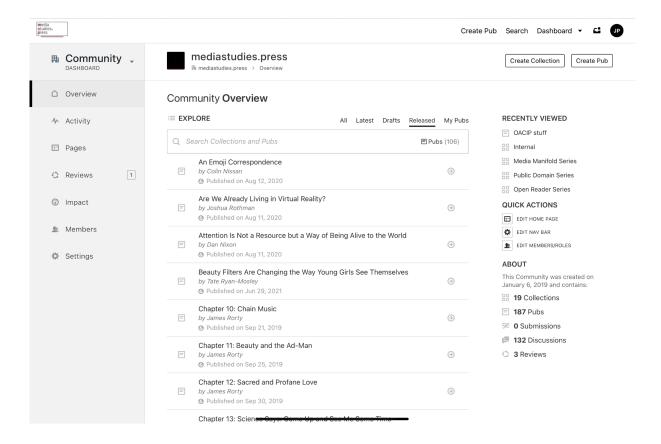
So we had a decision to make about where to host our books and articles. From the beginning we had in mind a platform that could support living works, with iterative updates stitched into the software. The media studies fields that we publish in are notoriously fast-moving, so we wanted to let authors revise and update their works. The idea was a version-in-motion more than a version-of-record.

We were also determined to publish in multiple formats, including video, audio, and interactive modes. The video essay is already a well-established scholarly format in film studies, and yet most journals in media and communication support text and image alone. So in 2019, when we began to canvas the options, we knew we wanted versioning and multimedia support. Mission alignment and open source were the other big criteria we had front and center.

There were, just then, a number of new platforms emerging, partly due to generous Mellon Foundation funding for academy-led, humanities-oriented scholarly infrastructure. Manifold caught our eye right away: a Mellon-funded platform, with excellent multimedia support, good values, and active development. We wanted to publish a journal too, and Manifold—at least at the time—catered to book or book-adjacent projects. We continued to scan the landscape and settled on Janeway, a journal-publishing software from the Open Library of Humanities, also seeded by Mellon.

So we went with Manifold for books and Janeway for journals, bridged by a Wordpress site, all of it hosted on <u>Digital Ocean droplets</u>. Everything was working, despite the hassle of three platforms and a steep Linux learning curve. But we hadn't yet published a title—we hadn't gone all in. A pair of 2019 announcements from PubPub—<u>new design flexibility</u> and the launch of <u>Collections</u> (see below)—had us curious to kick the tires. It dawned on us that we could, in theory, replace our three-headed setup, and offload the hosting too.

We haven't looked back.





Why PubPub

The virtues of PubPub range from the practical to the principled. With that continuum in mind, here are the main reasons we've stuck with the platform. The points here are listed in ascending order of importance, with mission-alignment in the crucial last position.

- 1. **All-in-one character:** From the beginning, PubPub was designed to be flexible, untethered to any particular scholarly form. The software is organized around the concept of <u>Collections</u>—groupings of individual works (<u>Pubs</u> in the platform's parlance). Journal issues, books, and conferences are three <u>Collection options</u>, with a fourth—a <u>Tag Collection</u>—the lightweight, pliable option. Pubs can live in more than one Collection, and they can be displayed—using a system of <u>customized blocks</u>—in a variety of ways. There's full support for static pages too, including a landing page, all of which can be tailored to a publisher's design language. It's not Wordpress-level design freedom, but it's flexible enough, especially with the recent addition of custom css. The upshot is that a small publisher like <u>mediastudies.press</u> can host the entire operation on PubPub, singles and serials alike.
- 2. **Hosted:** PubPub is hosted software, which means that all the code, files, and permission live on their servers. The benefit here is logistical: To run a PubPub instance, there's no need to establish and maintain your own server. So you don't have to build up as much technical know-how, nor toil away on ongoing maintenance. PubPub's centralized,

web-based approach has its flip-side drawback: As a press, you lose some autonomy, in principle and in practice. Though the software is open source, it's not easy, at least not yet, to install yourself. For some scholar-led publishing initiatives, this may be a deal-breaker, but for many others the pragmatics of cordoning off the technical side is worth the sacrifice.

- 3. **Balance**: In its early days, PubPub was proudly sui generis. The team ignored most scholarly publishing conventions by design. Among many other things, there was no real support for submission or review. The ambitious point was to rethink what scholarly communication might look like—built around the atomic Pub unit, HTML-first, and unburdened by the dead weight of tradition. That blank-slate radicalism, admirable as it was, made it hard to implement even defensible conventions, like citation formatting. What has happened, over the last few years, is that the team has made thoughtful concessions to the inherited reality: support for formatted PDFs, for example, or more book-specific metadata fields. PubPub may have razed the house of scholarly publishing, but its tacit goal since has been to build back the rooms worth having. The latest example is the brand-new submission feature: It's elegant, flexible, and robust enough for most workflows. It's many rungs above the hell that is ScholarOne, and strikes the Goldilocks balance between structure and freedom.
- 4. **Experimental:** PubPub's accommodations to convention have been limited and strategic. One benefit of the platform's calibrated irreverence is that they've devoted lots of time and coding energy to support novel and thoughtfully implemented features you won't find elsewhere. The support for versioning ("releases," in the software's language) is robust and legible, for example. Pubs begin as non-public drafts, but once published can be repeatedly updated. Each new "release" gets its own url; readers can navigate to older versions, each of which includes "You're viewing an older Release" banner and button. Or consider multimedia support: As a web-first platform, PubPub can publish almost any multimedia inline with text, including but not limited to standard embeds like YouTube, SoundCloud, and GitHub Gists. It's remarkably easy to publish interactive HTML5 <u>elements</u> within Pubs, using open tools like <u>H5P</u>. Along similar lines, the service's Pandoc-powered import and export options are powerful and delightfully designed, with Word, ePub, Markdown, LaTeX, and many other formats supported. I'll mention a final bit of innovation, PubPub's Connections feature. Pubs can be linked to one another, and to any other content with a url, by way of a "Connection," with a specified direction and type ("Comment," "Rejoinder," and so on). The result is an attractive Connection card pointing

to the companion piece. Better yet, the Connection gets registered with Crossref through PubPub's native and dead-simple <u>DOI-minting interface</u>.

- 5. **Sustainable:** PubPub's parent nonprofit, Knowledge Futures Group (KFG), has subsisted on foundation grants and donations from LinkedIn co-founder Reid Hoffman. Foundations are notoriously fickle, and often lose interest past the creation-and-launch stage. (Mellon's recent retreat from its scholarly infrastructure projects is a deflating case in point.) So we have been watching with keen interest as KFG has experimented with schemes to raise revenue—the lights, after all, must be kept on. KFG recently detailed their plans, with admirable transparency. The core idea is to transition from foundation support to self-generated funds over the next three years, by offering memberships and paid services. What's so impressive about the approach is that they've decided to keep PubPub's full feature set free. At the same time, they're asking scholar-led publishers and other PubPub communities to opt in as members, with benefits like custom domains and email support. Fees are pegged to operating budget on principle, with a pay-as-you-can ethos resonant with the broader movement for academy-led infrastructure. We signed up immediately.
- 6. The team: PubPub is actively developed, with a group (by my count) of four staff developers working to make fixes and roll out new features. The team maintains a public roadmap, and is quick to reply to queries and posts on PubPub's forum. There's lots of proactive outreach, as well as a pair of regular newsletters and occasional community gatherings. Gabe Stein, the PubPub director and KFG's Head of Operations, is unusually talented. His background is a mix of media and programming; he's also thoughtful (see his PubPub-hosted blog) and somehow conversant across the full stack, so to speak—from the bowels of the software all the way to core issues in scholarly publishing. Also impressive is Catherine Ahearn, Head of Content, who works directly with publishers and oversees the newsletters and Commonplace, KFG's own, PubPub-hosted publication.
- 7. **Mission:** For mediastudies.press,, Knowledge Futures Group's status as a nonprofit is a necessary, if insufficient, measure of mission-alignment. The single most important issue in scholarly communication is infrastructural—wresting back ownership and control from the commercial oligopolists. Platforms like PubPub are part of the solution-by-counter-example; as a nonprofit, KFG can't be swallowed whole by Elsevier. That's the crucial baseline, but KFG recognizes the higher stakes. "In the last several

years," PubPub <u>states</u>, "many once-independent publishing tools have been consolidated into closed platforms. We believe researchers need open-source, academically supported, end-to-end alternatives to these proprietary platforms and publishing models." This isn't merely mission-statement boilerplate; the core team—Stein, Ahearn, and Rich included—published an <u>important essay on the future of scholarly publishing</u>. They catalogue the problems with the current, extractive system, but also outline and endorse an alternative: the Publish, Review, Curate (PRC) model, a preprint-inspired approach that places review and curation after publication. We can debate the virtues of PRC, but what's exhilarating about the <u>piece</u> is that PubPub's creators are actively thinking about alternative futures. The article appeared in KFG's <u>Commonplace</u>, a "space to bring about the open infrastructure, policies, and cultures needed in an equitable knowledge economy." They're in the fight, too.

Origins of PubPub

PubPub was born at the MIT Media Lab, the celebrated design playground that's funded mostly by corporations. That pedigree, together with the project's backing from LinkedIn co-founder Reid Hoffman, had us nervous at first. It didn't help that, when we adopted PubPub in 2019, the Media Lab was reeling from scandal, centered on then-director Joi Ito's close ties to Jeffrey Epstein. We took a serious dive into PubPub's backstory, read Rich's dissertation, and looked into its plans to go independent. We ended up satisfied that the Knowledge Futures Group shared our values.

The software has an interesting history, dating to 2015. Rich was pursuing an MIT doctorate, working in Andrew Lippman's Viral Communications lab. He and other lab members had built an experimental, interactive tool to measure emotions in GIFs, called GIFGIF. They wanted to publish on their work, but couldn't showcase GIFGIF's animated design with a standard PDF, nor could they support the reader interactions they had in mind. Thus PubPub was born, inheriting GIFGIF's playful epizeuxis.

Rich <u>built the early versions</u> with fellow graduate student Thariq Shihipar. They were plainly inspired by open-source software development, borrowing conventions and language from Github and <u>Jupyter notebooks</u>. Versioning was there from the beginning, as were tools for collaborative authorship and commenting. Rich made the software the subject of his 2017 <u>doctoral dissertation</u>. By then the MIT Press was involved: The Media Lab and the university press <u>launched</u> the <u>Journal of Design and Science</u> on PubPub. The Press, soon after, collaborated with Arizona State University researchers on a PubPub-hosted version of *Frankenstein*, dubbed <u>Frankenbook</u>—the platform's first book-length work, released in 2018. The same year the Knowledge Futures Group was born, initially as a <u>joint initiative</u> of the MIT Press and Media Lab, with funding from Hoffman. KFG incorporated as an <u>independent nonprofit</u> in 2020.

SHORT ANALYSIS

PubPub continues to add new features at a fast clip, as charted in the <u>roadmap</u> and <u>newsletters</u>. Many conventions of the scholarly publishing tradition aren't there yet. But this is a design choice and—so far at least—we've found its heresies to be liberating. This is, one senses, a pivotal moment for the platform, with the just-announced <u>submissions overhaul</u> coming on the heels of the <u>membership roll-out</u>. There seems to be lots of momentum, with one publisher or project after another choosing PubPub as platform of choice. Within the scholar-led publishing community we know best, adopters include <u>COPIM</u>, <u>punctum books</u>, <u>Goldsmiths Press</u>, <u>CrimRxiv</u>, and the <u>MIT Press</u> itself.

At <u>mediastudies.press</u> we see our membership in PubPub as an investment in community-owned infrastructure. Rich made the case in his dissertation's last paragraph:

In the long term, we hope to see scientific communication transition from something largely controlled by for-profit, academically focused organizations to something that is seen as a public utility. As roads and electricity are fundamental tools we use to enable the operation of modern society, so too is the open and free communication of structured, scientific inquiry.