A. J. Boston

Thinking politically about scholarly infrastructure

Commit the publishers to 2.5%

Maybe it's unsurprising that I think about scholarly communication in terms similar to U.S. politics. I originally drafted this article for the Library Publishing Coalition blog before the 2020 election and revised it for *C&RL News* during the weirdly long interregnum period before the actual inauguration. The 2016 Republican National Committee was the backdrop to my becoming a scholarly communication librarian in February of that year. That's also when I joined Twitter, to better follow politics and librarianship, and maybe that's to blame.

To its credit, Twitter has been an invaluable resource for keeping up with the latest scholarly communication developments through candid conversation between relevant figures in the field, conference live-tweets, and policy announcements like the first Plan S announcement tweet from cOAlition S in 2018. The site has also made me excruciatingly aware of the shape of our political fights, pushed me further leftward, and caused me to think about scholarly communication and politics through a similar framing. Here's how that sometimes plays out.

During the vice-presidential debate, Senator Kamala Harris said clearly that a President Biden would not ban fracking if elected. This was not inspiring to hear from someone who previously called for a fracking ban. But it was an understandable strategy. Offending the mythical Pennsylvania swing-voter over *fracking* could jeopardize the entire race to an administration with far worse policies. But, if you *do* believe climate change is an existential threat, why adopt weakened policy stances? If you feel deeply about a cause, and it is within your power to make sweeping change, why keep on with the incremental? This, I've wondered for research funding agencies championing open access.

I'm sure I'm being unfair. A big-tent approach full of little policy compromises can effectively capture diverse constituencies. And sometimes a little progress is better than a lot of regression. That's the story I've told myself, at least, while making my daily compromise as an open infrastructure advocate managing our Elsevier-owned institutional repository service, Digital Commons. My school contracted with bepress (then an independent company), and my values felt reflected as I made the pitch across campus to deposit manuscripts there. That feeling changed when Elsevier acquired bepress in 2017.[3]

The Digital Commons service hasn't worsened, but the premise that custom. If the *values* that a product represents are considered part of its service, then the bepress service has absolutely worsened, even if functionality has remained the same. A. O. Hirschman described three options for people when facing a deterioration of goods and services: exit, voice, and loyalty.[4] *Exiting* the service seems out of the question, considering the many programs on my campus that have integrated the software. A swap would be costly and damage relationships in the process. I don't know if I'm *voicing* my displeasure in a way that will make a difference or if I'm just doing *loyalty* by default. What I do know is that there's a strong glimmer of recognition when Harris walks her fracking-issue tightrope, or when grant-funding institutions rock the boat just lightly enough that it doesn't risk a capsize.

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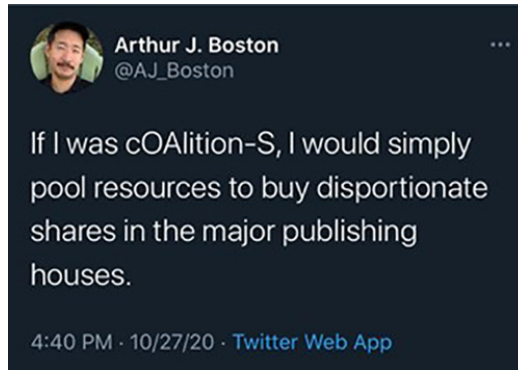
I'm still able to increase the number of green open access works with Digital Commons, but I can feel the ground shifting under my feet. Remember the scene from *There Will Be Blood* when Daniel Day-Lewis humiliatingly shouts "I drink your milkshake!" to Paul Dano, revealing that he had drained Dano's land dry of oil using wells located off-property? Well, it would seem that our milkshake (standing in for data [or: *Oil!]* about researcher activity) brings all the oligopolists to the yard, whether it's buried in a transformative agreement or dredged from an IR or other education platform, refined, and sold back to the university.[5]

"Could Bill Gates not just buy out RELX, parcel all the non-publishing stuff back onto the market, and put all the publishing part into a single non-profit org? Seems a lot simpler than constantly shoveling quarters into dozens of commercial publisher gumball (APC) machines."—@AJ_Boston, 5:14 p.m., November 7, 2019, Twitter Web App[1]

Vertical integration

Of course, it costs money to run things, and there are potential benefits for using publishing data to gain insights. But as Jefferson Pooley wrote, "scholarly communication is up for grabs," and it is unclear which camp will become its primary custodian: the "profit-seeking" camp or the "mission-committed" camp.[6] Pooley addressed the fates of the expanding scholarly architecture with commercial acquisitions (Altmetric, figshare, Authorea, etc.) on one hand, and Mellon Foundation-funded projects (Manifold, Open Library of Humanities, hypothes.is, etc.) on the other. As Alejandro Posada and George Chen documented, the five big commercial publishers (Elsevier, Springer Nature, Taylor & Francis, Wiley, and Sage) are systematically acquiring infrastructure that captures every stage of the academic knowledge production lifecycle.[7]



"If I was cOAlition-S, I would simply pool resources to buy disportionate shares in the major publishing houses."—@AJ_Boston, 4:40 p.m., October 27, 2020, Twitter Web App[2]

So what? Well, I've asked myself that during my daily commute through a community with a lot of visible farm work. The sight of denim and tractors conjures the "iconic image of the American farmer who works the land, milks cows and is self-reliant enough to fix the tractor."[8] But the reality is, when tractors outfitted with proprietary software break down in the field, the only legal repair solution is hauling it to an authorized agent, suffering the attendant costs and loss of time. The same for the crop whose proprietary seeds (which cannot legally be saved year to year) are often used out of necessity for their resiliency to proprietary insecticides. Vertical integration throughout any supply chain marginalizes small independent operators—be it family farms or scholar-led publications and infrastructure—which are among the last bastions of marketplace diversity.

Marcin Jakubowski confronted the tractor-repair issue on his own small farm, and he realized that "the truly appropriate, low-cost tools" necessary for "a sustainable farm and settlement just didn't exist yet." If he wanted "tools that were robust, modular, highly efficient and optimized, low-cost, made from local and recycled materials that would last a lifetime," rather than those "designed for obsolescence," he would have to build them himself.[9] The Global Village Construc-

tion Set, a repository of open source farm machine plans, was the result. Looking at Jeroen Bosman and Bianca Kramer's map of "an alternative open science workflow using open tools"[10] through a thick continent of proprietary services, we know the scholarly community is full of people like Marcin Jakubowski.

How do we continue to foster and incentivize more work in open scholarly infrastructure? For coders with economic needs already met by a higher education institution, we might expand the academy's native system of recognition (citations) to their work of creation and maintenance. But what about builders outside of higher education institutions for whom monetary remuneration will be the prime incentive? I want to conclude with a proposal towards answering this question.

A proposal

Senator Bernie Sanders proposed the Medical Innovation Prize Fund Act S1137 and S1138 in 2011 and 2017, and had one of these bills passed, a prize fund amounting to 0.55% of GDP ($80 billion in 2010) would have been created.[11] This pool would have funded cash prizes, paid to developers of select healthcare treatments that openly shared access to the related research, data, and technology, and denied themselves the "exclusive right to manufacture, distribute, sell, or use a drug, a biological product, or a medication manufacturing process."[12]

I suggest a version of this for scholarly infrastructure, to induce developers of our eligible scholarly infrastructure to make their projects open source, and to offer similar prizes on an annual basis to individuals (including the original developers) who release substantially updated versions, perform maintenance, and provide user support.

David Lewis, et. al. proposed that every "academic library should commit to contribute 2.5% of its total budget to support the common infrastructure needed to create the open scholarly commons."[13] Invest in Open Infrastructure has taken the lead in organizing such an effort. Cameron Neylon offered the critique that 2.5% is both too ambitious of a target and not ambitious enough.[14] Considering the austerity that academic librarians already face, I want to put a pin in the idea of asking any more from us.

Instead, I wish to close with a different sort of proposal—a challenge, really. The challenge is to major commercial academic publishers—which we (the academy) fund—that claim to desire a diverse marketplace and a thriving knowledge ecosystem. To the corporations that wish to rekindle good will: lacking the power to tax you, I instead challenge you to allocate 2.5% of *your* annual profit margin to fund open source, scholar-led infrastructures. In return for the no-strings donation of your resources, you will receive the prestige and well-regard accorded to the association with the open-source projects it supports. I believe "prestige" should be sufficient compensation, since it is all that you have offered for our free labor.

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Notes

1. Arthur J. Boston, "Could Bill Gates Not Just Buy out RELX, Parcel All the Non-Publishing Stuff Back onto the Market, and Put All the Publishing Part into a Single Non-Profit Org? Seems a Lot Simpler than Constantly Shoveling Quarters into Dozens of Commercial Publisher Gumball (APC) Machines," Twitter, November 7, 2019, https://twitter.com/AJ_Boston/status/1192581150067191808.

2. Arthur J. Boston, "If I Was COAlition-S, I Would Simply Pool Resources to Buy Disportionate Shares in the Major Publishing Houses," Twitter, October 27, 2020, https://twitter.com/AJ_Boston/status/1321205275433512967.

3. Lindsay McKenzie, "Elsevier makes move into institutional repositories with acquisition of Bepress," Inside Higher Ed, August 3, 2017, https://www.insidehighered.com/news/2017/08/03/elsevier-makes-move-institutional-repositories-acquisition-bepress.

4. A. O. Hirschman, *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states* (Harvard University Press, 1970).

5. Claudio Aspesi and SPARC, The academic publishing industry in 2018, "SPARC: Community Owned Infrastructure," https://infrastructure.sparcopen.org/landscape-analysis/the-academic-publishing-industry-in-2018.

6. Jefferson Pooley, "Scholarly communications shouldn't just be open, but non-profit too," LSE Impact Blog (August 15, 2017), https://blogs.lse.

ac.uk/impactofsocialsciences/2017/08/15/scholarly-communications-shouldnt-just-be-open-but-non-profit-too/.

7. Alejandro Posada and George Chen, "Inequality in knowledge production: The integration of academic infrastructure by big publishers," in L. Chan and P. Mounier (eds.), ELPUB 2018, https://doi.org/10.4000/proceedings.elpub.2018.30. I recommend readers seek out figure 5, captioned "Elsevier Presence Throughout the Lifecycle," which depicts a suite of research, publishing, and evaluation services acquired by Elsevier (bepress, Plum, SSRN, etc.).

8. Laura Sydell, "DIY tractor repair runs afoul of copyright law," All Tech Considered, August 17, 2015, https://www.npr.org/sections/alltechconsidered/2015/08/17/432601480/diy-tractor-repair-runs-afoul-of-copyright-law.

9. Marcin Jakubowski, transcript of "Open-sourced blueprints for civilization," TED, https://www.ted.com/talks/marcin_jakubowski_open_sourced_blueprints_for_civilization/transcript.

10. Jeroen Bosman and Bianca Kramer, "Workflows," Innovations in Scholarly Communication, February 17, 2018, https://101innovations.wordpress.com/workflows/. I recommend readers seek out the image from Bosman and Kramer that depicts the narrow path of open science tools (hypothes.is, ORCID, Zotero, etc.) scholars among a much wider map of proprietary products.

11. "Prizes as an Alternative to Patents," Wikipedia, Wikimedia Foundation, April 19, 2020, https://en.wikipedia.org/wiki/Prizes_as_an_alternative_to_patents.

12. Bernie Sanders, "S.495 - 115th Congress (2017-2018): Medical Innovation Prize Fund Act," S.495 - 115th Congress (2017-2018): Medical Innovation Prize Fund Act | Congress.gov | Library of Congress, March 2, 2017, http://www.congress.gov/bill/115th-congress/senate-bill/495/.

13. David W. Lewis, Lori Goetsch, Diane Graves, and Mike Roy, "Funding community controlled open infrastructure for scholarly communication: The 2.5% commitment initiative," *C&RL News,* 79(3), 133, https://doi.org/10.5860/crln.79.3.133.

14. Cameron Neylon, "Against the 2.5% Commitment," Science In The Open, January 5, 2018, https://cameronneylon.net/blog/against-the-2-5-commitment/.

("Focus groups from home," continued from page 260)

addition, students consistently expressed appreciation that librarians were seeking their input, leading us to believe that the focus groups themselves worked to build the library's reputation and goodwill among our users.

Conclusions

Our experience with virtual focus groups demonstrates their value, but also their unique character that should be accounted for both in the planning and the administration of the sessions. The ability to connect remotely with students allows librarians to reach a larger portion of the target population and provides the flexibility to structure sessions to meet varied needs. Captioning and other adaptive technologies enable libraries to invite feedback from students who may be unable to participate in an in-person focus group. As online learning continues to grow and virtual library services expand, engaging in constructive dialogues with patrons who have never set foot in the physical library offers valuable opportunities to assess shifting needs and create positive points of contact with patrons near and far.

Notes

1. Douglas J. Rupert, Jon A. Poehlman, Jennifer J. Hayes, Sarah E. Ray, and Rebecca R. Moultrie, "Virtual Versus In-Person Focus Groups: Comparison of Costs, Recruitment, and Participant Logistics," *Journal of Medical Internet Research* 19, no. 3 (2017): 15, https://doi.org/10.2196/jmir.6980.

2. David W. Stewart and Prem Shamdasani, "Online Focus Groups," *Journal of Advertising* 46, no. 1 (2017): 48–60, https://doi.org/10.1080/00913367.2016.1252288.

3. William H. Weare, "Focus Group Research in the Academic Library: An Overview of the Methodology," *Qualitative and Quantitative Methods in Libraries* 2, no. 1 (2013): 48.

4. Vicki Young, "Focus on Focus Groups," *C&RL News* 54, no. 7 (July/August 1993): 391, https://doi.org/10.5860/crln.54.7.391.