

Heather Joseph

# Securing community-controlled infrastructure

## SPARC's plan of action

Late last year, the news of Elsevier's acquisition of bepress, the provider of the popular Digital Commons repository platform, sent a shockwave throughout the library community. Hundreds of institutions that use Digital Commons to support their open access repositories quite literally woke up to the news that their repository services are now owned and managed by a company that is well known for its obstruction of open access in the repository space.

While this move was unwelcome, it was not surprising. For the past several years, Elsevier's long-term strategy has visibly shifted away from an emphasis on managing content, and moved directly towards becoming a powerhouse in data analytics. This is evident in the diversity of their more recent acquisitions, which appear to be designed to allow them to stake an ownership claim in all functions vital to the research cycle—from data gathering and annotation, to sharing and publication, to analytics and evaluation. The high-profile acquisitions of SSRN and Mendeley signaled this trend, and the bepress deal simply put an exclamation point on it. And Elsevier is not the only commercial player moving in this direction. Similar actions by other large vendors are growing more common in this space, as well.

While this is undoubtedly a smart business move for commercial players, it

presents significant challenges and risks not only to libraries, but to the academic and research community as a whole. The dangers inherent in ceding control of crucial research communication functions to a small number of commercial players are very real, and very well-known.

As we've experienced firsthand, the consolidation in the academic journal market has led to unaffordable costs, limited utility of research articles, the proliferation of Western publishing biases, and a system by which publisher lock-in of content through big deal licenses is the norm. This situation is damaging for the research enterprise, individual researchers, and for society. Applying this same consolidated control across research functions and platforms—including key elements like research evaluation systems and open access repositories—will exacerbate this already unhealthy situation.

Directly following the bepress news, Kathleen Shearer, executive director of the Confederation of Open Access Repositories (COAR), and I wrote a blog post to help frame our organization's responses to this development.<sup>1</sup> We pledged that rather than

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viewing the bepress acquisition as simply another occasion to register our collective disappointment, we would commit to making the development of community-owned infrastructure a priority, and to use this opportunity to catalyze positive community action. We noted that the bepress acquisition highlighted the vulnerability of the research communication enterprise and underscored the need for us to more clearly articulate our vision for the future of scholarly communication, the principles associated with that vision, and to take action to ensure that research communications is a community supported and owned enterprise.

This post led to a lively online conversation among SPARC members, who expressed deep concern over the acquisition and interest in a collective response. This feedback highlighted the need for a broader discussion of this challenge, and the role that we might play in supporting community action. We subsequently convened two in-person conversations, attended by more than 150 of our member libraries, to explore strategic responses and work toward articulating a set of specific actions that we could take to ensure community-control of critical infrastructure.

The discussions drove home the reality that the community shares a common concern: “Everything we have gained by opening content and data will be under threat if we allow the enclosure of scholarly infrastructures.”<sup>2</sup> The infrastructure that is at risk directly contributes to the decision-making functions across higher education institutions, from faculty recruitment and student enrollment to research productivity and other areas that feed directly into university rankings, student and faculty retention, and successfully securing research funding.

The emerging developments in this infrastructure space look eerily similar to the trends in the content arena over the past few decades: a small number of large commercial players steadily locking up ownership of output, distribution channels, and the metrics for determining success.

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During the discussions, an important point emerged: participants acknowledged that a big component of their unease with this trend does not stem solely from the fact that the main players are commercial companies, but rather that too often they are commercial companies whose values are radically misaligned with the values of our community.

The goal of these companies is profit maximization. At the end of the day, they answer to shareholders looking for a return on investment. Expecting, or hoping, that they might deploy strategies and practices that are designed ultimately to do anything other than achieve this goal is a dead end. Instead, we need to build a solid understanding of the business strategy behind these acquisitions, in order to design a pragmatic community response that has the greatest chance of success. So how can we do this?

A range of potential actions were proposed and discussed during and after these meetings. Since SPARC's remit is to serve as a “catalyst for action” in the scholarly communication space, we specifically looked for those opportunities that would allow us the greatest ability to leverage and accelerate progress. Ultimately, three proposed suggestions were adopted and included as priorities for SPARC in our 2018 Program Plan, and work on all three of these initiatives is now well underway.

### **Invest in high-level market expertise to produce a strategic analysis/ action plan**

The threat posed by commercial lock-up of crucial infrastructure has implications that

transcend libraries and extend across the operations of higher education institutions. This is not a problem that libraries can solve alone. It will require buy-in and action from institutional leadership. To facilitate this, we need to be able to make a clear and compelling business case to support recommended actions.

That means we need to fully understand the current commercial players' strategy, and identify specific points of vulnerability in the infrastructure space, as well as places where we have opportunities for potential leverage. As a result, the first new action area we committed to pursuing was to invest in high-level market and financial expertise that could provide us with a comprehensive analysis that objectively defines the current risk to the academy, and proposes pragmatic strategies and solutions for us to explore.

This was no small task. The scholarly publishing market is a multibillion-dollar revenue producing industry, and expanding the scope of our inquiries into infrastructure increased the scope and complexity of this analysis enormously.

We recognized that this analysis required a depth of financial expertise, coupled with a familiarity with the higher education/scholarly communication market, that is not resident in our community, and that we would be better served by securing assistance from an experienced financial analyst.

We conducted an extensive exploration of options (including retention of major business consulting firms, such as Boston Consulting Group, McKinsey & Co., etc.), and ultimately engaged a seasoned market expert, with more than a decade of work in this area, to lead this work for SPARC.

The first phase of work with the financial analyst—data gathering and preparing the comprehensive analysis and supporting materials—is underway, with initial deliverables expected by the end of this summer.

## **Redefining parameters for commercial arrangements**

As a corollary to the high-level market analysis, we need to be positioned to act once we better understand the market environment and the strategy at play. After the bepress acquisition, we listened hard to the initial responses from our member community and noticed that we have a tendency to gravitate to basic, broad categories of response—either “We should build our own platform to compete with the commercial players” or “We should boycott use of commercial platforms and only invest in working with ‘academy friendly’ players.” These are legitimate responses and can (and should) be part of our long-term strategy. But realistically, they are not sufficient to address the challenges we face in the infrastructure space.

We posed these questions to our members: Have we truly exhausted our options for working with commercial vendors? Can we change the underlying rules of the game to mitigate the risk of working with commercial players by making vendors compete for our business not only on price, but also on our values—including openness?

The second initiative that is underway is to approach answering these questions in a structured way. If we knew ten years ago what we know now, what would we have done differently in our selection of vendors, and, specifically, in our negotiations with bepress to prevent ourselves from being in the situation we are in today?

Can we build on work that has already been done and adopt a set of well-defined, collectively accepted principles of community-controlled infrastructure to help us assess the viability of working with a vendor in a way that allows us to achieve community control of that piece of infrastructure?

Can we define a set of contract requirements that would ensure community control over infrastructure and get a critical mass of our libraries to deploy them?

Can we develop collective investment strategies to strengthen the chances for a successful outcome of any subsequent community responses, i.e., the “2.5%” proposal?

Addressing these points will lay a stronger foundation for successful solutions to be deployed over the medium-to-long term. Coupled with the market analysis, these principles and contracting terms could be applied across the entire spectrum of university infrastructure that is at risk, not just in the scholarly communication space. This would position libraries to play a much more productive role in addressing these issues with institutional leadership.

### Revisiting our repositories

In the short-term, the bepress acquisition also spurred a desire to strategically rethink our repository strategy. While it is critical to have options for migrating away from bepress (and SPARC is working with COAR and other partners within our community to provide resources that assist with this process), we should also use this opportunity to ensure that our repository infrastructure supports our collective vision for what repositories can contribute to the landscape.

Our third action area is an active exploration of this question: Can we agree on a vision of next generation repositories that includes mechanisms to ensure they remain community controlled? The recent COAR report on next generation repositories provides an excellent starting point to consider how this might be accomplished.<sup>3</sup>

We are actively exploring ways to position our repositories, libraries, and research institutions as the foundation for a distributed, globally networked infrastructure for scholarly communication. This work involves developing new functionalities for repositories on top of which layers of value-added services, such as peer-review, can be deployed. An international network of next generation repositories, collectively managed by the

scholarly community, has the power to transform our system for communicating research—making it more research-centric and open to and supportive of innovation. The use of open source platforms, with appropriate community governance, is also critical to this goal and to preventing greater commercial control of both scholarly content and associated infrastructure.

As part of this initiative, we are looking at possible pilots at a subset of institutions that would allow us to use repositories as a proof-of-concept for community-owned infrastructure, and also to reassert community control over our content.

This last point is crucial to the ultimate success of all of our strategies. We aim to support our institutions in taking back control of the research enterprise to ensure that it functions in a manner that has the public good at its center. Our end goal as an organization remains maximizing the benefits of research through investing in and sustaining an ecosystem that nurtures openness, innovation, diversity, and equity, and we believe these new initiatives have the power to greatly accelerate our collective progress towards this goal.

### Notes

1. H. Joseph and K. Shearer, “Elsevier acquisition highlights the need for community-based scholarly communication infrastructure,” (blog) last modified September 6, 2017, <https://sparcopen.org/news/2017/elsevier-acquisition-highlights-the-need-for-community-based-scholarly-communication-infrastructure/>.

2. G. Bilder, J. Lin, C. Neylon, “Principles for Open Scholarly Infrastructure-v1,” retrieved June 12, 2018, <http://dx.doi.org/10.6084/m9.figshare.1314859>.

3. Confederation of Open Access Repositories, *Next Generation Repositories Behaviours and Technical Recommendations of the COAR Next Generation Repositories Working Group*, date accessed June 11, 2018, <https://www.coar-repositories.org/files/NGR-Final-Formatted-Report-cc.pdf>. 