



Planning assumptions and implementing strategies for co-operative print storage initiatives

This article recounts some of the major decision points addressed by the library directors on the Committee on Institutional Cooperation (CIC) in their efforts to establish a shared print repository for journal back-files widely held across CIC libraries. In 2011, the directors committed to co-invest in a centralized strategy to aggregate 250,000 volumes at Indiana University (IU), with potential for the project to expand over time to address other library formats (i.e. monographs) and encompass other storage host-sites. A focus of the article is an assessment of the costs of such projects, and the potential return on the investments being made by the CIC libraries.

In 2011, ten library directors from member universities of the Committee on Institutional Cooperation (CIC) agreed to underwrite the costs of building and maintaining a shared collection of 250,000 print journal volumes to be stored and managed at Indiana University (IU). This commitment was the culmination of several years of deliberation about how such a project should be organized, scoped, funded and managed. The decision of the directors to co-invest in this initiative set in motion the first steps to aggregate content at IU, along with further in-depth discussions about access policies, discovery, and efficient strategies for evaluating and ingesting content from partnering libraries. The CIC library directors were well aware that building shared storage capability at scale is neither a trivial nor inexpensive undertaking. In fact, these projects, which on their surface would seem quite static, actually involve a very dynamic set of choices for how best to meet rapidly evolving user needs and expectations, set against a backdrop of an even more rapidly changing technological environment. By definition, storage initiatives require librarians to plan beyond the foreseeable or knowable future. Attempts to 'plan' 20 years into the future are like playing a fast moving video game where quickly moving targets and threats pop up on screen in rapid, randomized succession. Even as project proposals and budgets are being drafted, underlying assumptions about users, library practices and technology require constant revision.



MARK SANDLER
Director
CIC Center for Library
Initiatives

If this article has a point, it is that storage planning is far more complex than figuring out how to move a few pallets of little used library volumes to a secure a warehouse where they can sit undisturbed until someone has the nerve to discard them altogether. Rather, these storage initiatives are about maintaining channels of communication between past generations of scholars and their future counterparts whose goals, findings and manner of work we can hardly imagine.

Before explicating some of the complex issues that need to be addressed when planning large-scale storage initiatives, some background about the CIC, its member universities and libraries might help the reader contextualize the key decisions made by the group.

“By definition, storage initiatives require librarians to plan beyond the foreseeable or knowable future.”

The CIC consortium

The CIC is a provost-led organization that fosters academic co-operation across 13 premier research universities in the Midwestern United States.¹ Founded in 1958, the CIC consortium

283 has been a vehicle for its member universities to advance their missions, save money, and enrich opportunities for students and faculty through sharing expertise, leveraging campus resources, and collaborating on innovative programs. Co-ordinated by 16 FTE staff headquartered in Champaign Illinois, CIC activities are designed to help member institutions fulfill their collaborative strategic objectives.

The Center for Library Initiatives

Operating within the broader context of the CIC consortium, the Center for Library Initiatives (CLI) co-ordinates the collaborative programs of the research libraries of CIC member universities. CLI libraries have collaborated and co-invested for decades to license/purchase content collectively and share resources and expertise to enrich the experience of CIC faculty and students across member universities. More recently, they have worked together as a unit to co-ordinate digitization of content through a collective scanning partnership with Google and manage their digital files through a founding partnership with the HathiTrust Digital Library.

The plan for shared print storage described below is built on a foundation of high trust among the CIC libraries as a result of a 54-year history of their universities working together on a broad array of academic, technological and business issues. Trust among these institutions has been earned over the long term through hundreds of iterative transactions where terms are codified and expectations are met or exceeded. Against that backdrop, it was possible for these libraries to enter into a storage agreement with confidence that any participating CIC library would take all necessary steps to fulfill expectations, giving the same care to content stewardship and user service as would any other, and that none would seek financial advantage at the expense the others – not now, and not in the foreseeable future. Because of the long-term nature of storage agreements, it is evident that the CIC's deep and ongoing organizational interdependence across a multiplicity of projects would be a key ingredient for success. While it is theoretically possible for an ad hoc group of libraries to come together for the sole purpose of sharing a stored print collection over a 25-year term, the odds of success would be far lower for such a one-off marriage of convenience.

CIC collections

Located as they are in the rural heartland of America, and dispersed across nine states separated by 1,000 miles from east to west, the CIC universities have traditionally functioned as self-sufficient city-states, complete with campus-managed police services, transportation systems, residence halls, athletic arenas, concert halls and museums. As one might expect, these institutions have traditionally prided themselves on the size, scope and diversity of their library collections, built to bring to arms-length the needed resources to support every imaginable academic discipline and research agenda.

Collectively, the CIC libraries hold some 85 million print volumes, the overwhelming majority being held multiple times across the 13 campuses. As scholars shift their work habits to an increasing reliance upon electronic access, the CIC libraries – like libraries everywhere – are seeking ways to reallocate space, staff and fiscal resources to support the growing campus appetite for digital collections. In such an environment, the accumulated print assets that historically defined these libraries can begin to look like liabilities, gobbling up valuable space, staff time and cash – capital and operating dollars – that could be better directed to new activities.

Using standard library measures, the aggregated CIC print collections occupy something in the order of 10 million linear feet or 2,000 miles of shelving. In dollar terms, the annual cost for maintaining the totality of these collections – most in primary stacks, some in storage facilities – is something in the order of US\$200 million per year. Granted, these are not fungible costs that would allow unexpended dollars to be redirected in the short term to pressing library

“... the accumulated print assets that historically defined these libraries can begin to look like liabilities ...”

284 needs such as server hardware, web designers or database subscriptions. Nonetheless, it is inevitable that campuses will need to address the ongoing costs of print management, and capital migrations need to occur over the long haul.

Project goals

As articulated by the CIC library directors, the CIC Shared Print Repository (SPR) is designed to address the following goals:

- aggregate, secure, and preserve the rich print resources developed by CIC libraries over the past two centuries
- ensure that CIC scholars and students have timely access to these archived resources
- realize the economies of scale made possible through collective action that will allow CIC Libraries to apply best practices for storing, preserving, servicing, and reflecting print holdings well into the future
- help CIC campuses reclaim local resources, including space, funds, and staff time by relieving them of the obligation to store lesser-used redundant materials
- integrate CIC libraries into an emerging national network of collectively managed research library resources.

Operational strategies

To achieve these goals, and to carry them out in such a way as to be true to an accompanying set of value statements and principles,² the CIC library directors took considerable time weighing the costs and benefits of the various operational strategies adopted by storage projects already underway in the US and beyond. To simplify – perhaps oversimplify – these discussions, the primary decision point for the directors was whether they should opt for a distributed model of retention, storage and service – a model where each CIC university would agree to retain content that others could access – or whether they would be better served by investing in larger aggregations of content to be stored at one or several locations, perhaps delivering more even-handed application of standards, and more consistent fulfillment of services.

By all accounts, a decentralized operational strategy (all schools retain some bodies of print content) would require less of a cash investment at the outset. By committing space and staff resources to retain and service a modest number of volumes, the schools participating in a decentralized storage plan can avoid the cash compensation required to reimburse an external host-site for the costs of space, utilities, insurance, supplies, staff, content validation, records upgrades, systems development and service required to manage a substantial number of volumes.

New funding being a scarcer resource for most libraries than space or staff, one can imagine that it would take some persuasive arguments for the majority of CIC directors to come down on the side of a centralized storage strategy. What, then, were the concerns that ultimately led the directors to adopt a more cash-intensive strategy for print storage? There were several:

- CIC campus storage facilities are of uneven quality, only about half having been purpose-built and fully in compliance with preservation standards for library materials
- most holdings already in storage have not been validated or have been validated to differing standards
- users – especially future users – might have a difficult time piecing together what is available where, and under what terms it can be accessed
- it would be more difficult to codify retention commitments in a decentralized model and to make sure that they are honored over time

“... it would take some persuasive arguments for the majority of CIC directors to come down on the side of a centralized storage strategy ...”

- it is difficult to mesh local work processes, record keeping and systems to achieve a more or less uniform representation of a collection for others groups relying upon CIC holdings for purposes of print preservation.

Ultimately, the CIC library directors opted for a storage model that placed a premium on preservation, long-term security, discovery and user service over an approach that is more piecemeal and uneven but with a lower bar – as measured in cash – for entry. In other words, the directors honored their principles by putting their money where their mouths were. At this point, a curious reader is probably asking, “How much money are we talking about here?”

Project plan

Having decided on a central print storage strategy, the directors then approved a five-year plan to build a shared print collection of 250,000 journal back-file volumes to be housed at Indiana University. Targeted collections would first focus on resources that serve the disciplines of science, technology, engineering and medicine (STEM) where stable digital surrogates for print are widely available and where the faculty and students are comfortable accessing content electronically. The work of aggregating this initial STEM collection would be organized by publisher (Elsevier, Wiley, Springer, et al) and housed at Indiana University where the library had just opened a new high-density storage module with capacity for 3.5 million volumes over and above the existing facility which has capacity for over 2.5 million volumes. Modules I and II of IU's Auxiliary Library Facility (ALF) are environmentally controlled, well-staffed, well-appointed facilities that include a conservation lab, book vacuuming station, freezers and other appurtenances that distinguish IU's storage capabilities from many others around the United States. The preservation aspects of a storage plan were particularly important to the CIC directors, and the Indiana ALF sets a high standard for book archiving, including capacity to carry out volume-level validation, cleaning, boxed storage, and numerous fail-safes for inventory management.

“... the directors honored their principles by putting their money where their mouths were.”

Indiana's ALF is not the only purpose-built, state-of-the-art book storage facility in the CIC, and the CIC storage plan anticipates extending their agreements to incorporate other host-sites, allowing for an expansion of the storage program beyond the initial shared collection of 250,000 volumes.

As to the projected cost of the CIC initiative, the group is reluctant to share too much specificity about its budget projections because their circumstances and assumptions are unique, and their projected costs are more likely to mislead than inform others seeking to build projects of their own. The CIC-SPR budget, like storage budgets from other groups, is highly speculative as costs are projected and amortized over 25 years – well beyond the telescopic lenses at our disposal. That said, the overall projected costs for the initial component of 250,000 volumes to be validated, ingested, recorded and reported over five years, and then stored and serviced over 25 years, is in the order of US\$1.75 million.

On the matter of money

We'll leave it to the reader to decide if US\$1.75 million is a lot of money or a small price to pay to responsibly manage the legacy print resources of 13 large research libraries. Some context, however, might help this calculation. As was already stated, the CIC libraries have combined operating budgets of nearly a half-billion dollars a year, and the CIC universities have annual operating expenditures approaching 30 billion dollars. Another data point might be the insurance value of CIC print collections built over 160 years – something in the order of 10 billion dollars.

Yet another way to calculate the value proposition of building a shared print collection is to compare the project costs with the estimated costs that each of the CIC universities would be committing to retain 250,000 volumes on their own. Using cost projections reported by

Courant and Nielsen in 2010³, the annual cost to a library to maintain a volume in primary stacks is US\$4.26 as compared with US\$.86 in a high-density storage. Most volumes actually migrate from primary stacks to storage over their library lifetime, so something in the order of US\$2.00 per volume is probably a fair average for libraries that have invested in a high-density facility and higher for those without that option. Across the CIC, the opportunity for ten libraries to withdraw volumes – let’s say half of the 250,000 volumes in a shared collection – over 25 years, would return savings on the order of US\$60 million.

The CIC libraries recognize that these ‘savings’ are largely theoretical, in the sense that freeing up shelf space or staff time is not the same thing as receiving a check that could be applied to new acquisitions or new staff recruits. One can quibble endlessly with the numbers used to calculate cost and benefit, but it is undeniable that there are real costs to managing millions of print volumes each year. And as demand for these volumes diminishes over time, no business or cultural institution can afford to ignore the missed opportunity of redirecting their expenditures from maintaining slow-moving inventory to providing resources and services in high demand by customers or users.

“One can quibble endlessly with the numbers used to calculate cost and benefit ...”

Implementation

In its first year of operation, the CIC Shared Print Repository has secured 75,000 volumes at the Indiana University ALF. The focus of this initial collection has been on titles published by Elsevier, Wiley and Springer, in part because of the high degree of overlapping holdings across CIC libraries, in part because of the availability of trusted digital surrogates for their titles, and in part because of the preference for digital access expressed by faculty in disciplines served by these publishers. In these early months of the project, not only has progress been made on aggregating a critical mass of content, but also in developing standards for reporting these holdings to OCLC in conjunction with their guidelines for indicating preservation actions and ‘Group Action Capabilities’ in a Library Holdings Record (583 field). In addition to codifying these metadata practices, the CIC-SPR Steering Committee has approved various access policies for journal content, affecting not only CIC campus constituents but, as well, the Midwestern US region served by their institutions.

The next step in implementing the project plan is to begin ingesting complementary volumes from other partnering schools. Indiana University estimates that they hold about half of the available journal titles published by Elsevier, Wiley and Springer, meaning that they will look to their CIC peers to fill in the other half. Because of varying library practices for recording holdings (including ‘not recording’ holdings), system incompatibilities, different approaches for tracking serial title changes, and other metadata complexities, easy – i.e. machine-enabled – comparisons of holdings have proved elusive. Accordingly, the determination of appropriate source libraries for particular titles or particular volumes has proven difficult. IU has worked with a subset of three CIC libraries to develop guidelines for preparing and evaluating lists, but current practices for these and similar functions seem fragile and not yet conducive to the development of scalable ingest processes.

“ ... there is nothing easy or straightforward about planning or implementing a shared storage project.”

Some concluding thoughts about return on investment

As described above, undertaking a storage initiative requires substantial investments, including commitments of time, staff, space and money.

As anyone involved with one of these initiatives can attest, there is nothing easy or straightforward about planning or implementing a shared storage project. Moving a shared storage initiative forward requires boundless patience, high tolerance for ambiguity, the will to persist despite multiple false starts, and the stamina to mobilize dozens and dozens of colleagues in decision-making on all aspects of the project.

287 While building a shared storage collection requires a significant investment, it is an investment that can pay big dividends for libraries. In saying this, however, we recognize that withdrawing 50–100,000 volumes from stacks or storage does not pay the bills. Savings will accrue over the long haul, but, in the short run, withdrawing books makes room for other books, as distinct from creating a significant pool of uncommitted dollars to be reallocated to other library priorities. This is stated to point out that analyses of costs and benefits can be deceptive if we are weighing investments of current operating dollars against theoretical cost savings returned over decades.

“Doing nothing always has consequences – it is, in fact, ‘doing something’, and, in most instances, ‘doing something wrong’.”

That said, doing nothing to manage space and print holdings is a sure-fire recipe for library decline. The costs of inaction in this space are not just a matter of dollars and cents (or pounds and pence) but, rather, a matter of institutional relevance and survival. A failure to decide – a failure to act – is as much a choice by libraries as is investing in a new building or reorganizing staff. Doing nothing always has consequences – it is, in fact, ‘doing something’, and, in most instances, ‘doing something wrong’. A failure by libraries to address print management says volumes about their vision, priorities and future prospects ... or lack thereof.

Finally, while savings *can* be achieved through co-operative efforts to manage print, it should be recognized that the savings don’t accrue per se from building a shared print repository; savings are realized by withdrawing print volumes from local collections. Building a shared print repository *adds* cost to a library’s operating budgets and will only pay a return if that library acts to withdraw local holdings replicated in the shared collection. This process of local withdrawal adds yet more cost to the overall calculus of costs and benefits. The CIC, and comparable groups managing storage projects elsewhere, are not yet in a position to estimate the full costs of local withdrawals, but it is most likely the case that the process will be more time-consuming, expensive, and fraught with drama than any of us could imagine looking forward. Although we don’t talk about it as much as we should, the decision to build a shared print repository only makes financial sense if that investment is connected to a specific and time-bound commitment to withdraw unnecessarily replicated local holdings.

References and notes

1. CIC member universities are the University of Chicago, University of Illinois, Indiana University, University of Iowa, Michigan State University, University of Michigan, University of Minnesota, University of Nebraska, Northwestern University, The Pennsylvania State University, Purdue University, The Ohio State University, and University of Wisconsin.
2. Sandler, M, et al, CIC Co-Investment to Protect Print Research Library Collections in the Midwestern United States, *Collection Management*, 2012, 37 (3-4), 237–59.
3. Courant, P N and Nielsen, M, On the Cost of Keeping a Book. In: *The Idea of Order: Transforming Research Collections for 21st Century Scholarship*, 2010, Washington, DC, Council on Library and Information Resources.

Article © Mark Sandler

Mark Sandler

Director, Center for Library Initiatives

Committee on Institutional Cooperation, 1819 S Neil St, Champaign, IL 61820-7271, USA

Tel: 217 244-9239 | E-mail: Msandler@staff.cic.net | Web: <http://www.cic.net/CLI>

To cite this article:

Sandler, M, Planning assumptions and implementing strategies for co-operative print storage initiatives, *Insights*, 2012, 25(3), 282–287, doi: 10.1629/2048-7754.25.3.282

To link to this article:

<http://dx.doi.org/10.1629/2048-7754.25.3.282>