

Curating Collective Collections — “Reflexive Curation: Accident, Risk, and Medium in the Collectively Curated Collection”

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In this column, I have been invited to reflect on the risks we may face as we move closer to a distributed, shared, “collectively curated” national or global collection, drawing on some ideas I explored in 2002 in an article on “Technological Change and the Scholarly Communication Reform Movement.”¹ There, I pondered the inherent risks in relying on market mechanisms for production and distribution of the scholarly and cultural record in digital formats, as those risks may be illuminated by the work of social theorists **Manuel Castells**, **Ulrich Beck**, and

Anthony Giddens. Here, I want to extend some of those considerations to print as a medium and to the systems that are emerging for a more strongly interconnected network of shared collections of print. Is the digital medium “riskier” — more vulnerable to loss — than print? And is risk inherent in the medium — the material — or in something else? What is the nature of this “risk,” and how should we respond?

But I want to start with a personal story. Early in my career, as chief librarian of the **Essex Insti-**

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News From the Field

△ **Mark Sandler** reports that **CIC’s** publisher-based Shared Print Repository focusing on STM journals has now validated and processed 75,000 journal backfile volumes at the **Indiana University** facility.

△ The **Maine Shared Collections Strategy** partners have completed an **OCLC** reclamation project to ensure more accurate data in **WorldCAT**, and collection analysis is underway. The Maine program will be based on a distributed archiving model.

△ **Judy Russell** reports that Florida’s statewide shared collection program has a new name: **FLARE, Florida Academic Repository**. While awaiting funding for a high-density facility, **U. of Florida** has leased warehouse space to begin storing materials within the shared collections framework. Work is underway on an MOU specifying last copy retention policy through **FLARE**, and policies are available at: csul.net/node/774.

△ **ReCAP, Research Collections Preservation Consortium**, the shared storage facility of **Princeton, NY Public Library** and **Columbia** has begun a one-year planning process to explore changing the shared library storage facility to a shared collection. **ReCAP** partners are working with consultants **Lizanne Payne** and **Marshall Breeding**, and organizations **Sustainable Collections Services** and **OCLC Research** to identify business models, discovery tools, and workflows, and to analyze **ReCAP** holdings to set priorities for sharing.

△ A total of 102 libraries from 17 states joined **WEST, the Western Reserve Storage Trust**, in 2011, including three sets of consortial members. In the first archiving, five Archive Builders (**UC SRLF, UC NRLF, Stanford, Arizona State, and Oregon**) have ingested and reviewed hundreds of titles and thousands of volumes, and an additional 13 Archive Holders have committed to archive thousands more titles. For cycle 2, Archive Holders and Builders have been identified for an additional 4,000 titles beginning in summer 2012.

△ **OhioLink** has approved a *Preservation Policy for Serials Contained in the Ohio Regional Library Depositories* that governs management of the collections of the 13 state-supported universities and continues its pilot efforts aimed towards de-duping their five shared depositories.

△ The libraries of the **California State University** system have begun a shared collection management project under the aegis of the *Libraries of the Future Taskforce (LOFT. Sustainable Collection Services (SCS))* will compile and examine circulation and overlap data across six LA Basin campuses. The results will provide a foundation for discussing shared print options within the LA Basin.

△ **Sustainable Collection Services (SCS)** has created a *Deselection KnowledgeBase*, which is now freely available to the academic library community. It includes 250 articles, white-papers, Websites, blogs, slide decks, conference proceedings, and books — all focused on monographs weeding; offsite book storage; library space planning; shared print initiatives; collaborative collection management; collection use; collection assessment; national-level collections research; digital preservation; and various musings about the future of print collections. See <http://sustainablecollections.com/deselection-kb/>. 🐼

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tute in Salem, Massachusetts,² I was privileged to be able to confirm a tentative identification of a fragmentary pamphlet — its title page missing along with portions of the text — as a “lost” sermon by the famous Puritan minister **Cotton Mather**. A former librarian had inserted a querulous “Evans 1979?” inside the fragment, which was part of a longstanding backlog of uncataloged materials awaiting attention by the Institute’s understaffed library. I followed this lead — a reference to **Charles Evans’ American Bibliography**³ — through references in **Mather’s** diary and other contemporary sources, concluding that it was the sermon *Providence Asserted and Adored*, preached and published in 1718 on the death of a lighthouse keeper named **George Worthyake**. The sermon had been known to exist, but **Evans** and other bibliographers had recorded it as “no copy located” — a lost imprint, now found.⁴

Over time my career took me to an academic library. Digital files became a more important part of my professional concern. And as I reflected on this lost-and-then-found pamphlet, I was deeply struck by the fragility of print — how easily a work, albeit minor, by a major figure in American history could altogether disappear — but also by its durability. This copy had survived the loss (so far as anyone knows) of all other copies, even survived the loss of its metadata (its title page), seemingly by virtue of the ontological stubbornness of paper and ink. Could a digital object, I wondered, possibly survive under similar conditions — the lone copy of someone’s master’s

thesis reconstructed 270 years later, extracted from a 5-1/4 inch floppy found at the bottom of the proverbial shoebox, its header information corrupted by a bad disk sector?

However many copies of that **Mather** sermon may have been printed, they all — save this one — seem to have befallen various accidents: burned in fires, destroyed in floods, buried in collapsing farmhouses. The difference between accident and risk — or natural risk and manufactured risk — has figured prominently in modern social theory, particularly in the work of **Ulrich Beck** and **Anthony Giddens**. Examples of natural risks are fires, floods, and epidemics — disasters that are a natural part of the physical world. The vulnerability of digital information, by contrast, seems better characterized by what **Beck** calls manufactured risk — “*hazards and insecurities induced and introduced by modernization itself*.” Risks, as opposed to older dangers, are consequences which relate to the threatening force of modernization.⁵ It is the very complexity of this system of digital representation, storage, and communication, on this analysis — the fragile storage media, the far-flung network, the relentless dynamism of its cycles of innovation and obsolescence — that creates the conditions of its own fragility and risk of breakdown.

But are digital objects really more vulnerable to loss than print-based information objects? And is the difference between print and digital media for preservation the real lesson of this story? As to the first question, **Matthew Kirschenbaum**, among others, reminds us that, in fact, digital information is “surprisingly resilient in the face of fire, flood, and other disasters that would have spelled doom for their paper precursors.” “[G]iven sufficient time and resources,” he continues,

“data can often be recovered even if the supporting medium has been traumatized.”⁶

More important, the survival of that copy of **Mather’s** sermon was not as accidental as the disappearance of the other copies. At some point in its history, that copy became part of the collections of a library whose operations were organized around curation and preservation. The sermon had entered a space in which the possibility of accident was greatly reduced (though not eliminated, of course: fires and other misfortunes befall libraries, too). It was not because of its medium (its physical nature as paper) that it endured. The quality of curation, not the format curated, is what matters most to preservation.

At the same time, however, that new curatorial space presented a new set of vulnerabilities, which would be characterized as risks, not accidents, by **Beck** and his fellow theorists: vulnerability, for example, to disruptions in the power supply for the library’s climate-control system (without temperature and humidity controls, library storage in New England can be more damaging to paper than an air-cooled farmhouse) or to vicissitudes in institutional budgets or staffing: dangers created by the very systems designed to preserve the collections. Digital information is vulnerable in some similar ways and some new ones: disruptions in electrical supply can lead to more severe disruptions to access (even if not to total loss, per **Kirschenbaum**), and digital information is more vulnerable than print to market-driven availability of the hardware and software platforms necessary to interpret it.

So far, **Beck’s** analysis is commonplace: the distinction between natural and manufactured risk and the notion that manufactured risk is a defin-

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ing characteristic of industrial and post-industrial modernity aren't especially profound. But **Beck** takes this argument a step further, claiming that our increased understanding of social and natural systems — the very knowledge that librarians, archivists, and other curators are charged to preserve in its recorded forms — itself increases risk. He contrasts his position with the “classical premise” according to which “the more societies are modernized, the more agents (subjects) acquire the ability to reflect on the social conditions of their existence and to change them in that way.”⁷⁷ Our increasing understanding, for instance, of the chemistry of paper can be “fed back” into our collection management practices, helping us to that extent to reduce the risk that our cultural heritage will be attenuated or lost by acid-induced embrittlement. But **Beck** argues for a more complex understanding of “reflexive modernization”: “the further the modernization of modern societies proceeds, the more the foundations of industrial society are dissolved, consumed, changed, and threatened.”⁷⁸

Anthony Giddens makes a similar point perhaps more clearly: “To the Enlightenment thinkers, and many of their successors, it appeared that increasing information about the social and natural worlds would bring increasing control over them. For many, such control was the key to human happiness; the more, as collective humanity, we are in a position actively to make history, the more we can guide history towards our ideals. ... [But] the world of high modernity ... is much more open and contingent than any such image suggests — and is so precisely *because of*, not in spite of, the knowledge we have accumulated about ourselves and about the material environment. It is a world where opportunity and danger are balanced in equal measure.”⁷⁹

As I read **Beck** and **Giddens**, the systems we use to record, communicate, and safeguard knowledge and experience — including our increasingly distributed and coordinated systems of curation — themselves increase complexity and risk, which will not be reduced, overall, by new or additional knowledge. Technological risk will not be eliminated by the application of more technology. Granted, in the face of dwindling resources and escalating needs and expectations, a theoretical appeal to risk — a vague “what if” — may not feel compelling. Those wispy uncertainties are surely outweighed by the good that could be done if we moved more quickly to eliminate print collections, convert them to digital files, and rely on someone else — other libraries or the marketplace — to keep them available.

But media are also reflexive, as media historian **Lisa Gitelman** argues. They are not simply inert surfaces or containers, but rather “socially-realized structures of communication, where structures include both technological forms and their associated protocols, and where communication is a cultural practice.”⁸⁰ Caution is therefore warranted as we further rationalize and coordinate our collective-curation strategies. This is not an argument against technological change, much less a brief in favor of “simpler” or “more durable” analog over digital media. The challenge, as **Giddens** points out, is to balance as best we can the opportunities created by modern technologies — the opportunity to reduce duplication and redundancy in our collections and use our financial resources, time, and attention in new ways — against the risks that arise as we

stake preservation on fewer print copies and on digital files, including digital systems of metadata. We should be careful not to overestimate what we think we know about the functioning of these complex systems, or to extrapolate too confidently from current trends. We should remember that the reflection or self-awareness that is part of modernization itself shapes the modernization process and not necessarily for the good. Consider, as a small example, how what we think we know about the holdings of other libraries, through shared catalogs like **WorldCat**, can influence our local collection decisions, leading not to careful coordination but to complaisance or false confidence as we count on others to retain materials we prefer not to.

Transitions from one media paradigm to new media — as we are seeing now in our transition from paper to digital — are especially fraught as the new media appear to supersede and eclipse the old. Media, **Gitelman** reminds us, “tend unthinkingly to be regarded as heading a certain ‘coherent and directional’ way along an inevitable path, a History, toward a specific and not-so-distant end. Today, the imagination of that end point ... has been most uniquely characterized by the cheerful expectation that digital media” — and we might generalize to all media — “are all converging toward some harmonious combination or global ‘synergy.’”⁸¹ Let us beware of glib and reductive assumptions about the redundancy of print copies after they have been digitally copied: media are embedded in complex social practices that do not fully reduce to marks on surfaces, and digital copies do not capture all the affordances of print that might turn out to be valuable parts of scholarly and cultural practice.

Beck's and **Giddens's** reflections also remind us that just as the benefits of a shared collection are widely shared — whether through an ILL system based on shared metadata like **WorldCat**, consortial database licensing that spreads costs more evenly, or open-access digital collections or source code — so too are the risks. Modern libraries have always worked in coordination with

each other; today more than ever we all — small libraries and large — ought to participate in one or more of the shared systems of preservation that are in place or emerging (the **Center for Research Libraries** or **Portico**, for example). By the same token, those systems should (as these examples do) ensure that smaller, less well-funded libraries have ways to participate within their means. Which programs any given library will support will be a matter for local determination, but “fit” with the library's mission should be interpreted broadly in the context of an evolution of collections and services whose direction — in terms of benefits and risk — cannot be predicted with any certainty.

Finally, let us beware of overselling our capabilities as we further develop our coordinated collections. Risk is inherent in complex systems, and we do not know how those systems — not just our technology, but our scholarly, cultural and curatorial practices as well — will behave or change over time. Acknowledgement of uncertainty will be crucial as we craft strategies with funders and the scholarly community at large. We should not bear this risk alone. As I suggested in 2002, “The stakes for libraries, if they are to remain an integral part of the scholarly communications system, are high. ... [W]hile the existence of risk poses a threat to the credibility of experts, it is worse for an expert community to be discovered to have concealed risk or to have ignored it altogether.”⁸²

Our gradual development of a network of increasingly interdependent libraries and repositories promises tremendous benefits in increased access to the world of knowledge, but entails difficult choices regarding business models, standards for “trustworthiness,” numbers of page-verified print copies that ought to be preserved, etc. “Reflexive curation” might be one name for describing an evolving practice that is marked by an understanding of risk, sensitivity to uncertainty and our own fallibility, and an awareness of the historically contingent nature of all curatorial practices, including this one. Let us move forward with optimism, tempered by care. 🌱

Endnotes

1. **Richard Fyffe**, “Technological Change and the Scholarly Communications Reform Movement: Reflections on Castells and Giddens,” *Library Resources and Technical Services* 46:2 (April 2002): 50–61. Available: <http://hdl.handle.net/1808/125>.
2. A research center and museum for New England history, since merged with the **Peabody Museum** as the **Peabody Essex Museum**.
3. **Charles Evans**, *American Bibliography: A Chronological Dictionary of All Books, Pamphlets and Periodical Publications Printed in the United States of America from the Genesis of Printing in 1639 Down to and Including the Year 1820* (Chicago, 1903).
4. The sermon was subsequently published in facsimile in *Essex Institute Historical Collections* 125(3), July 1989: 209 ff.
5. **Ulrich Beck**, *Risk Society: Towards a New Modernity*, trans. **Mark Ritter** (Los Angeles: Sage, 1992): p. 21. Italics in original.
6. “The remarkable staying power of data stored in digital form is a function of the physical property of magnetic media known as *hysteresis*, or its capacity to retain a charge over time.” **Matthew G. Kirschenbaum**, **Richard Oviden**, and **Gabriela Redwine**, *Digital Forensics and Born-Digital Content in Cultural Heritage Collections* (Washington, DC: Council on Library and Information Resources, 2010) (CLIR Publication 149), p. 40. See also **Kirschenbaum's Mechanisms: New Media and the Forensic Imagination** (Cambridge, Mass.: MIT Press, 2008), chapter 1, “‘Every Contact Leaves a Trace’: Storage, Inscription, and Computer Forensics.”
7. **Ulrich Beck**, **Anthony Giddens**, and **Scott Lash**, *Reflexive Modernization: Politics, Tradition, and Aesthetics in the Modern Social Order* (Stanford: Stanford University Press, 1994), p. 176.
8. *ibid.*, p. 176.
9. *ibid.*, p. 58, italics in original.
10. **Lisa Gitelman**, *Always Already New: Media, History, and the Data of Culture* (Cambridge: MIT Press, 2006): p. 7.
11. **Lisa Gitelman**, *op. cit.*, p. 3.
12. **Fyffe**, *op. cit.*, p. 59.