Rebalancing the Investment in Collections

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ood morning, it is a pleasure to be here today and have a chance to contribute to this rich dialogue regarding the research library collection of the 21st century. To lay the groundwork for my presentation, I will talk briefly about the nature of preserved information and how this contributed to shaping the research library collection of the 19th and 20th centuries. Then, while I will say a few things about my views regarding the nature of tomorrow's collection, I recognize that you have heard during the last 24 hours compelling presentations and comments regarding the various elements comprising this future. In my remarks, I will focus on two information types—visualized data and special collections—that I feel are evocative of my general position that it is not just the information itself that determines the value of tomorrow's collection, but also where and how the information is and can be used.

I will then turn to the effort to delineate a new holistic framework for analyzing the aggregations of information presently available, and I will suggest steps to assist in positioning us to make reasoned decisions regarding current and future planning. I hope to introduce a new prism through which we can view the information universe and the portions of that universe we make explicit efforts to support the use of. This holistic approach includes an understanding of the full spectrum of information available to scholars and students and the technological capabilities, rights of use, and services necessary for full utilization of these resources. The holistic framework's raison d'être is

knowledge creation—from inspiration to information, to analysis, synthesis and dissemination.

In concluding, I will turn to John Lombardi to advise us on how this new framework and the other thoughts and ideas he has heard here can be best employed in serving principal needs of our universities. He will also advise us on how to present this new vision to senior university administrators and how they might envision supporting our transformation.¹

The Nature of the Collection

First, a quick review of what the collection was and is. I suggest that the viewpoint commonly expressed regarding the comprehensive research library collection of the recent past fails to incorporate extensive shortcomings. Working as an archivist and special collections administrator for nearly 20 years, I am aware of the extent to which our preserved record of the past is remarkably incomplete and that we have limited knowledge of how and why and to what extent it is incomplete. Sumerian archaic cuneiform script is generally considered the oldest known writing system, beginning in the early Bronze Age, ca. 3100 BC, but to what degree is this knowledge uniquely based on the survival of the clay tablets on which it was recorded? And since some tablets were reused rather than preserved and preservation was restricted to those tablets that were fired, either in kilns or perhaps sometimes when cities were burned by invading armies, what portion of that record do we hold? This paradigm of highly selective preservation can be applied often, and how have regional climates impacted the preservation of document forms?

Many of our libraries hold medieval manuscripts produced in Latin by monastic scribes, but do we hold any of the 700,000 "Timbuktu manuscripts," produced in Arabic script or Africanized versions of Arabic from as early as the 13th century? I know that the Library of Congress does and an increasing number are now available on the web. In the modern day, we are aware that in some places, access to printing presses was restricted, thus shaping the early printed record. We are fully aware of the difference between the record of the conquerors and the conquered, the haves and the have-nots, aboriginal and non-indigenous populations, women and men, gay and straight. And of course, we have almost no record of those numerous societies for whom their principal transfer of history, science, and literature was verbal.

So what is a comprehensive research library collection? We thought we knew during the golden age of collection building, from the mid-19th century to the last quarter of the 20th century. During that period we built and preserved marvelous collections, often through the work of "the great bookmen" and generous collectors, and then increasingly through routinized organizational structures, professional practice and processes of selection and purchase conducted systematically, and continuously supported through the expenditure of the "collections budget." And the organized competition around the size of this annual budget or special collections endowments has been intense, and we have worked hard to convince our universities that maintenance and growth of this sum was what guaranteed the quality of research and education in our universities. And for many years, this was true. It remains true in part, but it is not the same.

A prescient elaboration of the coming change appeared in 1984 in an article written by F. Gerald Ham, then State Archivist of Wisconsin, "Archival Choices: Managing the Historical Record in the Age of Abundance." Ham identified that computer-generated information would change the archival challenge from

pursuing information to confronting a confusing wealth of information.

In preparation for this session, I spoke with my co-presenter John Lombardi. He referred to this change as when the system "broke." I countered that perhaps "disrupted" was a better word, but since

our conversation, the word "broke" has stuck in my mind. As suggested by yesterday's speaker, Rick Anderson, in his recent guest editorial in the *Journal of Academic Librarianship*, in spite of our embrace of the digital environment, "we hold many of our traditional organizational structures, practices, and mindsets in an increasingly desperate death-grip." Well, that system is broken. John Lombardi knows it, and we do too.

So if we accept that our current collections model does not align well with the digital environment in which we and our users live, how do we reframe the dialogue. Several information types that effectively illustrate our dramatically changing environment have been engagingly described by previous speakers. I will speak to a couple of additional areas, suggesting concepts instrumental to a holistic model of knowledge creation and use.

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The Emerging Field of Visualized Data and Visual Analytics

Dynamic, real-time dissemination of content makes demands on our capacity to offer real-time visualization.

Today on our campuses, students and scholars are investigating and analyzing natural phenomena and human-initiated activities as they are occurring in real time. Disease outbreaks; political events tweeted and tracked in social media; astronomy events like sunspots, meteors, and aurora borealis; particle physics experimentation; neural surgery—all these forms of research phenomena are being created, visualized, and studied dynamically. Or in the field of cultural expression, "live" artistic and cultural performance visualization offers the potential for creating multi-site interactive presentation. All of these forms of real-time, interactive data challenge our current notions of information display, capture, management, authenticity, ownership, and preservation—indeed the very notion of "collecting" itself.

Data visualization will increasingly impact many areas of information use, ranging from real-time financial trading data to the boundless universe of spatial research data, the value of which is often dependent on comparative data overlays.

Describing this new environment of which we are a part, Natasha Singer wrote in the *New York Times*:

In an uncharted world of boundless data, information designers are our new navigators. They are computer scientists, statisticians, graphic designers, producers and cartographers who map entire oceans of data and turn them into innovative visual displays, like rich graphs and charts, that help both companies and consumers cut through the clutter. These gurus of visual analytics are making interactive data synonymous with attractive data....

Visual analytics play off the idea that the brain is more attracted to and able to process dynamic images than long lists of numbers. But the goal of information visualization is not simply to represent millions of bits of data as illustrations. It is to prompt visceral comprehension, moments of insight that make viewers want to learn more."⁴

Most libraries are not yet fully prepared to manage and provide access to these dynamic forms of knowledge. But clearly they are here, challenging our thinking and our technical capacity.

Special Collections

The second information type I would like to address as evoking a holistic framework is special collections.

Most of our collections funding is devoted to licensing electronic publications, and most of those publications are academic journals. And most of what we buy is being bought by everyone. And this often extends far beyond ARL libraries. In Canada, the Canadian Research Knowledge Network collaborative acquires a similar selection for every institution of substantive size. State and provincial cooperatives extend access to core journals even further. Approval plans address most selection for undergraduate study in most fields, and they do it better and more economically than we can, and we all achieve similar results. Our archives and special collections remain our opportunity for playing a distinctive role in documenting culture, science, industry, government, and the human experience.

Special collections can become an increasingly central element of our libraries—but special collections must first become a central element of our libraries.

Important changes in both curatorial practice and teaching and research interest have increased the educational value of these holdings, and digital technologies have provided a means to extend our impact worldwide. ARL has in recent time endorsed the value of this

component of our collection, and there has been expressed interest in increased support within our institutions. This may not yet have happened frequently, in part because traditional managerial autonomy and distinctive practice has impeded the kind of synergies to which we would aspire.

Special collections can become an increasingly central element of our libraries—but special collections must first become a central element of our libraries. A new alignment is necessary, incorporating special collections, staffing, and expertise into the common asset base of the library. First, mission alignment both with the broader library and with the university mandate as well is needed. Procedurally, unified discovery is essential. Regardless of the description methods or systems employed, we owe our users the capacity to find related materials within our holdings, whether published, unpublished,

art, artifact, digital collection, or new media. This unified broadly accessible information is also essential to library colleagues who should be knowledgeable in promoting primary resources in their liaison roles along with the latest new database licensed. And I will add here that, surprisingly, it is not just our archivists and special collections librarians who have trouble stepping across existing dividing lines. For that reason, new organizational structures may prove essential in bring humanities librarians and archivists together to pursue common outcomes. With the growing need to evolve policies and functional support for acquiring, managing, and supporting the use of society's born-digital record, differing aggregations of technology and archival staffing will be necessary. This will position archives and special collections in a role as an integral leader in shaping the evolving 21st-century collection—but it will be as a component activity contributing to broad institutional goals.

Reframing Our Thinking in a Holistic Way

Now we turn to the challenge of reframing our thinking in shaping the collection of the 21st century in an unbounded information universe, in which the applicability of the paradigm I have described is limited. Patron-driven selection and innumerable other changes are rewriting the means and, as Rick Anderson describes, the comprehensive and well-crafted collection is no longer an end in itself. We now must create a new, broadly inclusive framework that incorporates a dynamic environment of multiple interdependencies and expanding potential for collective action.

How do we establish a new prism through which to evaluate the choices available to us today? An important step is to substantially alter the existing concept of the collections budget. This suggestion is not an explicit recommendation that any institution spend such funds differently, and doing this is not a solution in and of itself. Re-conceptualizing how we manage this funding is a means to remove one of the barriers to evolving a new way of looking at the collection that exists and that our users use, as opposed to viewing it only as the items we purchase via this budget. In an age of HathiTrust, Google Books, the Internet Archive, the Digital Public Library of America, Open Access and Open Data, digital special collections, Wikipedia, and other wonders of the open Net, the collections budget can establish an artificial context, compelling us to view success in a manner that may fail to realistically incorporate the way in which our users pursue information and the sources they employ.

The collections budget began painting us into a corner nearly two decades ago, and as a result, some institutions began to spend these funds in ways we would not have found broadly "permissible" a decade earlier. I am not criticizing those expenditures specifically, but has it led us to choose to make certain expenditures because they can be paid for from the collections budget, rather than their being subjected to the competitive light of day?

More importantly, however, has the current concept of the collections budget produced imbalances in our expenditures, reducing our ability to add new skill sets and to invest in technologies needed to enable 21st-century knowledge creation? Has it established adversarial divisions among our managers? Does it limit our capacity to pursue cooperative solutions that have the capacity to enhance the resources of many universities? And perhaps most importantly, does it prevent us from being able to tell our university administrators how we could truly enhance our contribution to university success if we had appropriate funding?

Conclusion

During this forum, you have heard provocative descriptions of the information universe in which we live and bold suggestions regarding steps necessary in creating a 21st-century environment for knowledge creation. Embracing collaborative solutions and involving a broad spectrum of expertise within and beyond the library, we have tough choices to make. But they are very exciting choices. It is a moment in which we can choose to serve our institutions in new and critical ways, achieving resonance with the principal goals and aspirations of our universities and creating roles essential to tomorrow's success.

- An audio recording of the complete session, including the author's and John Lombardi's remarks, is available on the ARL website at http://www.arl.org/resources/pubs/fallforumproceedings/forum11.shtml.
- ² F. Gerald Ham, "Archival Choices: Managing the Historical Record in an Age of Abundance," American Archivist 47, no. 1 (Winter 1984), 11–22.
- Rick Anderson, "The Crisis in Research Librarianship," Journal of Academic Librarianship 37, no. 4 (July 2011), 289–290. Also listen to the audio recording of Rick Anderson's presentation at the ARL-CNI Fall Forum, available on the ARL website at http://www.arl.org/resources/pubs/fallforumproceedings/forum11.shtml.
- ⁴ Natasha Singer, "When the Data Struts Its Stuff," New York Times, April 2, 2011, http://www.nytimes.com/2011/04/03/business/03stream.html.

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