ALCTS Midwinter Symposium
January 15, 2010

Reality Dreams: An Inchoate Essay in Three Parts

Peter Brantley
Director, BookServer Project
Internet Archive

I assume an understanding of the need for significant redefinition of library role and purpose. I believe future library functions should be focused in three primary areas:

1) Extending the traditional
2) Data systems support
3) Space and place

1. Extending the traditional.

Libraries are already oriented toward a function as information-intensive social centers, permitting and encouraging a wide range of study, research, and interactive capacities. I think there are new iterations of these services looming, which I will discuss at a later point. However, the core function of the library as a print warehouse is clearly being deprecated by the widespread ubiquity of network access, which removes the necessity for physical collections beyond a particular form of archival preservation.

Other commentators such as Daniel Greenstein of the University of California, as well as myself, have noted for years that traditional library functions are likely to be significantly reduced as the attractiveness of print book artifacts lessens. Content will be increasingly licensed from external partners, both library consortial partners (e.g., possibly a role for HathiTrust) and commercial, for-profit partners (e.g., Elsevier and other large content providers). Curation may continue to reside—for merit of localized expertise—among library staff working in close contact with faculty and library peers, but the business functions should be removed to campus or organizational administration.

There is value in reviewing the existing functions of libraries, such as ensuring access to the published record (both formally and informally instantiated), through an exploration of digital analogues to print traditions. For example, libraries have been permitted to function within the framework of copyright in the United States through explicit reliance on the "First Sale" doctrine. Imagining how First Sale might benefit access to digital works has not been systematically explored. However, while public domain works are fully available in digital form, and newer in-print publications are nearly always available for purchase or licensing in digital form, there is considerable danger of restricted access to digitized out-of-print materials.

The Internet Archive, working with other organizations, is committed to exploring digital lending of out-of-print works through its BookServer Project, which aims to provide access to any book, to any reader, on any device, and in any format. Clarification of the digital rights attendant on such services will likely only be addressed once they have been enacted, and are available for challenge and refinement. However, this is arguably a critical juncture for libraries to commit to ensuring their privileged place in the framework of copyright and information access on behalf of their served communities.

2. Data systems support.

It has been well spoken that libraries need to become more fully inserted into contemporary faculty and community research patterns. Active collaborations with faculty, often cross-institutional and almost inevitably cross-unit within a single campus environment, are spreading with a fervor matching the zeal of library administrators who believe they have found unassailable claim to their continued survival. However, all is not so simple. These functions are also laid claim to, with some justification, by campus technology departments, which usually possess both greater experience with and aptitude for designing, developing, and deploying technology-based information access systems.

Engagements in fraternal collaborations are an exercise in marketing more than in productivity, permitting management to lay hand on the mantle of success while their staffs attempt to align resources and labor to new endeavors while maintaining existing priorities, which rarely re-align to accommodate the

stresses of this new organizational vision. Rather than struggle through organizational mire, it is preferable to euthanize functions that under-perform in both units due to structural resource constraints. To perceive unmet needs and address pressing ones, it is far better to recombine the technology, science, humanities, and research understandings that increasingly exist in ample measure across both sides of a dividing fence.

From a campus-wide perspective, I suggest that fundamental components of library and technology organizations be surgically extracted from their current hosts and combined in a new data systems–support unit. Focusing on educational and research needs, this unit would be mandated to perform the essential systems analysis required to serve the core functions of a university from the perspective of enhanced information access, handling, and interactivity.

Such a strategy somewhat enervates both IT and library departments. The development and guidance of a new and holistic unit focusing on educational and research data systems support calls for sufficiently senior strategic executive management—management that should be a Chancellor's or President's Cabinet–level position.

3. Space and place.

In the years ahead, with the increasing ubiquity of network access to portable devices and ad hoc-located portals, we will see increasing development of fully immersive environments and tools that not only locate us in a network of information resources, but also bridge us together in ways that we find difficult to conceptualize now. The recent development of immersive real-time conference facilities that enable virtualization of presence points toward a new horizon role for libraries that enables them to connect space and place in new ways.

Augmented reality toolkits and applications for mobile devices, such as Layar, already enable casual network users to sandwich linked data layers on top of their perceived environment. A smartphone capable of knowing place and position (GPS), and of "seeing" people, places, and things through its camera eye, is already a platform sufficient for combining and presenting datasets on history, architecture, census, and a

wide range of other data. Extension of these toolkits to extended physical spheres (i.e., non-lived environments such as astronomical-, geophysical-, and molecular-level perceptions) is being executed.

The perception envelope generated by user-integrated data presentation layers can inevitably be expanded to encompass holodeck-like virtualization capacities that will enable far-flung collaborative groups to investigate and manipulate information through sophisticated data-sharing systems that can willfully impose shared reality-dreams on their participants. The ability to "be on the ground" at significant historical events, or investigate alternative historical or future scenarios, will require a skill-set combining computational science with movie- and entertainment-industry understanding of pyscho-physical responses to visual, auditory, and perceptive cues. Similarly, the ability to explore through hand-delivered manipulation changing environmental influences on global urban health via computing capacity that would still be considered super-computing class today is a clear extension of contemporary CAVE simulations.

In this synthesis of information-dense space and place rests a compelling re-architecture of the library, neatly synthesizing its assets in physical space and knowledge engagement. The library as an institution engendered over the past few millennia to provide gate-keeping to scarce physical resources, is reaching a terminus in its life cycle. Yet its capacities and vision for providing access to the widest possible collection of information to the widest possible number of people will be enshrined in new ways. This is a future well worth the designing hands of the new library professionals waiting for an opportunity to latch onto change; imagining futures among the empty shelves, hoping that they will be able to turn on new lights even as the lights in their own old buildings grow dim.