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Library Technology Services at Boston University: an un-roadmap

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Library Technology Services at Boston University: an un-roadmap

Introduction

Recent experience at Boston University Libraries leads us to believe that library and information technologies change rapidly enough that most decisions about library technologies at BU have a useful life expectancy of about three years. As technologies change, the expectations and real needs of users change as well. Attempting to articulate a detailed long-range plan (5-10 years) for library technologies at BU seems counter-productive. Periodically attempting to identify current and emerging user needs and expectations in the context of trends in technology is beneficial, though, and important in making informed decisions. This document attempts to identify user needs and expectations along with trends in scholarship, scholarly communication, and technologies that are the context in which decisions about library technologies are made. It also attempts to develop at least a sense of direction to guide decisions about library technologies at BU.

Issues and Trends

The following issues and trends are expected to shape the scholarly research and learning environment in the near (1-3 years) and intermediate (5-10 years) future. Some already impinge on that environment. Others are still nascent.

1. Scholarship and teaching will become increasingly data focused, a shift from being information focused. Re-use of data will be driven initially by funding sources like the NSF, but will become expected. Libraries will be called upon to help scholars build, maintain, preserve, and make data accessible for scholarship and teaching. Scholars and students will begin to treat library collections as data sets rather than collections of information.
2. Scholars and students will shift from a first generation conception of the web as a place where electronic copies of scholarly work are stored to a conception of the web as a locus of creativity and innovation. The web will become the place where they go to do their scholarship rather than the place they go to retrieve the copies of already produced scholarship. They will expect platforms that support modularity, extensibility and openness. Collaboration and even crowd-sourcing will be expected. Interoperability will be demanded. Both research and scholarly communication will become more recursive or iterative and less linear than they have been in a research and publishing environment dominated by print formats.
3. Publishing will become increasingly decentralized with new and unexpected genres and media being recognized as scholarly work. Libraries will assume increased responsibility for publishing, curating and making accessible the work of the faculty and students they serve.
4. Libraries' collection development efforts will become known more as aggregation efforts and will be focused increasingly on locally unique collections. Libraries will aggregate and curate the intellectual and creative content generated by the communities they serve. Large scale digitizing efforts (Google, OCA, etc.) will digitize most of the content currently available only in analog formats. Individual libraries will focus on digitizing uniquely held content and aggregating born digital content and data.

5. Libraries will continue to manage licensed digital content for their primary user communities. As commercial publishers continue a shift toward publishing in digital formats, most of the content that libraries have traditionally collected in analog formats will shift to digital formats. Traditional acquisition and licensing agreements may be replaced by patron-driven acquisition and document delivery services.
6. Libraries will be pushed to make their technologies integrate/communicate with larger university business and administrative technologies. Service Oriented Architecture (SOA) and well documented APIs will be expected.
7. Users will expect to discover library resources and services integrated into their normal workflow rather than only in library spaces, both physical and virtual.
8. User authentication and authorization will be managed through national and international collaborations and will be more user focused than institutionally focused. A user may have multiple institutional affiliations associated with her/his identity.
9. The trend toward mobile computing will continue, requiring libraries to be able to provide resources and services across a wide array of computing devices. It will become increasingly important to separate content from the container that delivers it.
10. Scalability of workflow will become increasingly important as libraries develop strategies to serve their users with resources and services. The rate of data/information production will continue to increase at rates far greater than library personnel and acquisition budgets.
11. Cloud computing will increase in importance as a way of breaking down silos of content, increasing efficiencies of workflow, benefiting from a network effect, and focusing on core functions of the library.
12. Users will need effective tools for managing search, discovery and use of data and information.

An Un-Roadmap, Perhaps a GPS Device

A clearly defined roadmap may not be possible and perhaps would not be as helpful as a GPS-like device that continually re-calculates the position of the Libraries in relation to their goal. At BU, we recognize that the Libraries are responsible for not only the curation and dissemination of data and information, but facilitating learning and knowledge creation. The Libraries are an intentionally multidisciplinary meeting ground for scholarly engagement and learning. Curation and dissemination of data information are always performed in service to the Libraries' mission to increase connections between people that result in knowledge creation. With that, the following might be guiding principles in making technology decisions for the Libraries.

1. The Libraries will be working with faculty and students much earlier in the research process. Librarians' work will shift from collecting the final products of scholarly research to collaborating with scholars throughout all phases of that research, including research design, data management and description (metadata) for reuse, and publication of research results. Technologies that provide a collaborative, open, and extensible platform that facilitates all phases of research activity in easily integrated ways will support the Libraries' mission.

2. Libraries will assume responsibility for aggregating, curating, and making accessible (including publishing) a wide range of digital content and data. Technologies that allow the Libraries to develop scalable and standardized workflows to manage these processes for digital content and data will support the Libraries' mission.
3. Libraries will need to deliver content and services across a wide range of computing platforms. Technologies that allow the Libraries to easily separate content and services from the delivery containers will support the Libraries' mission.
4. Libraries will continue to need to deliver commercially acquired or licensed content to their users. Technologies that allow scalable workflows for managing such content and seamless discovery and retrieval mechanisms for users will support the Libraries' mission.
5. Libraries will be required to make their technologies integrate easily with the University's business and administrative systems. Technologies that facilitate this integration will support the Libraries' mission.
6. Collaboration with other libraries will grow in importance. Technologies that allow the Libraries to benefit from a "network effect" will support the Libraries' mission.
7. Users will require tools to discover, retrieve, analyze and use information and data that are available to them regardless of location and computing platform. Technologies that allow the Libraries to push these tools, content, and services out into the user's workflow will support the Libraries' mission.