Chapter XXI
In the Eye of the Storm: ERM Systems are Guiding Libraries' Future

Ted Koppel
Ex Libris Inc, USA

INTRODUCTION

Electronic resource management (ERM), as a tool for library management, grows in importance every day. The ERM industry has matured greatly over the past decade. Just ten years ago, the first journals began to be published on the Web in significant volume; by 2007, many smaller colleges and some large research libraries have moved to complete or nearly complete electronic-only access (Ives, 2006). The Association of Research Libraries reports that the average ARL research library now spends over 31% of its materials budget on electronic resources, with a large proportion of these libraries spending more than 50% of their materials budget on electronic resources (Kyrillidou & Young, 2006).

In a relatively short period of time, libraries have struggled to redesign not just the nitty-gritty of policies, procedures, systems for managing their resources, but especially their roles in the information delivery process, to meet the demands and opportunities of a digital landscape for information seeking and research. Changes have been revolutionary, but libraries and publishers have adjusted rapidly and there are now systems, best practices documents, and evolving standards on which to build future enhancements. Libraries are working with less chaos and more confidence in managing e-resources. But this calm is deceptive—libraries are in the eye of the growing storm that will soon reveal more revolutionary change.

In this chapter, we will examine the most significant of these changes, show how they present challenges for libraries, and suggest how electronic resource management systems (ERMs) could evolve to help libraries meet these challenges. We conclude that ERMs represent just a step towards the “new ILS” (integrated library system)—that the next “heart” of library management will be something past the ERM, and believe that it is imperative that libraries work carefully to push ERM system development in ways that support and advance, rather than undercut, the libraries’ missions.

This chapter will examine following major trends in electronic resource management and
look at critical opportunities for ERM system use and development in each area:

- Ubiquity of high speed communication platforms and inexpensive mass storage
- Changes in user behavior / increased competition from non library search engines and content sources, user-centric design; the need to get metadata where users are, rather than asking them to come to library Web sites or tools.
- Disintegration of the ILS: End of ILS as the gateway/gatekeeper. The case for integration and/or interoperability; and incorporation of user-generated content in end-user tools and services.
- Evolving pricing and access models, including changing fortunes of the Big Deal and the associated practical and philosophical issues; open access; usage-based pricing; and cost-effectiveness measures for e-resources, pay per view.
- Intellectual property struggle: Digital rights management models, licensing concerns and trends
- Technical, as well as philosophical archiving issues, including the development of third party cooperative archiving

In addressing these key trends in e-resource management, we will look at how the emergence of local and then commercial ERM systems relate to these trends, and how the mission of the ERM system has expanded to encompass many library functions (e.g., serials control, acquisitions, license metadata storage). We will examine the differing expectations for ERM systems from various players in the market (libraries, publishers, and ERM system vendors) and how “mission creep” should be addressed, including the specter of ERM systems as digital rights management delivery mechanism.

### RECENT MAJOR TRENDS IN ELECTRONIC RESOURCE MANAGEMENT

#### Hardware and Software Changes

Three major hardware and software advancements during the last ten years have enabled the library world to rapidly adapt to electronic resources are the primary means of information delivery to their constituencies. Lacking any of these three, electronic resources would not have been able to flourish to the extent that they have, but the late 1990’s and early 2000’s delivered a “perfect storm” of technological advancement.

Assisted by the 1996 U.S. Telecommunications Act that continued deregulation of communications companies, a number of telephone, cable, and other participants in the telecom industry began an orgy of fiber-optic data line construction across the United States (and indeed, the rest of the world participated as well). Millions of miles of “dark fiber” (referring to excess capacity in a carrier’s fiber optic lines) were buried in anticipation of future use. Telephone companies developed ambitious business plans to carry huge amounts of data, based on predictions of data transmission demand multiplying for years.

The dot-com bust (2000-2001) resulted in a huge oversupply of fiber data carrying capacity. Lack of demand for data transmission, the oversupply of capacity, and advances in multiplexing and data communications hardware combined to make high-speed data transmission extremely inexpensive. Colleges and universities rewired their campuses to take advantage of new, faster data transmission. New offerings for the end-user consumer, such as cable modems, DSL, and broadband Internet service, brought high speed data to almost all locations in the United States. A 2004 map showed almost the entire United States, with the exception of some small areas in northern Alaska and northwestern Utah, having access to at least one high speed or broadband provider.
Related Content

Collection Development
www.irma-international.org/chapter/collection-development/69944/

Mobile Applications for Libraries
www.irma-international.org/chapter/mobile-applications-for-libraries/188099/

Intelligent Personal Agents in Library 2.0 Environments: An Assistant Prototype
Jesús Tramullas and Piedad Garrido (2013). Library Automation and OPAC 2.0: Information Access and Services in the 2.0 Landscape (pp. 144-160).
www.irma-international.org/chapter/intelligent-personal-agents-library-environments/69268/

The Evolution of License Content
www.irma-international.org/chapter/evolution-license-content/10032/

A Question of Degrees: Collecting in Support of the Allied Health Professions
www.irma-international.org/chapter/question-degrees-collecting-support-allied/67938/