Chapter XX
The Future of Electronic Resource Management Systems:
Inside and Out

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ABSTRACT

The core functional requirements for electronic resource management systems have been identified and implemented in varying depths by commercial and library system developers. As use of these systems increases, novel needs have been revealed. These new needs reside on both sides of the end-user spectrum. Library staff have a need to analyze their electronic collections for comprehensiveness, title overlap, cost-per-use, usage distribution within journal packages and other collection analysis functions. They also have the need to automate administrative tasks like IP registration, incident reporting, activation, renewal, sample license review, and license exchange. Library patrons and public services staff have a need to understand the full range of permissions and restrictions for electronic resource use at the local and consortial levels. They also have the need to be alerted when electronic resources have been upgraded, enhanced or when system outages are planned or are on going. Those needs are manifest at all levels of access: the discovery services platform, online public access catalog, the link resolver, the metasearch environment, A-Z list, and so forth. Since the electronic resource management system already stores permitted and restricted uses, it is the ideal source for that data at all levels of patron access. As electronic resource management systems evolve, the functional requirements should evolve to describe the library's needs for a system that acts as a collection development and analysis tool and as the source for critical access and license data for patrons wherever they access the library's electronic resources and to support the requirements of libraries in a consortial arrangement.

INTRODUCTION

Electronic resource management (ERM) systems have followed a traditional path in library system development. As the workflow impact and overall importance of electronic resources grew in the late 1990's and early 2000's, library staff developed local systems to meet specific functional requirements. As the workflow and overall impact of electronic resources increased, library professionals collaborated on formalizing functional requirements and the ideal data elements for ERM systems. This effort took the form of the *Electronic Resource Management: Report of the DLF Electronic Resource Management Initiative* (Jewell et al., 2004). Over time, the locally developed systems could not adequately meet staff needs or could not be maintained and enhanced over the long term. In the early 2000's, library professionals approached commercial system developers to build systems to match the now-formal functional requirements and data elements. It was widely understood that the commercial system developers had the development resources and long-term commitment to providing systems that would meet the needs of electronic resources librarians. These systems were to varying degrees integrated with integrated library systems and other systems already in use by the library (Fons & Grover, 2004). As the middle 2000's approached, a robust market of competing systems grew and libraries began to implement the commercial systems at the local and consortial levels. As these systems were developed and the core functional requirements were met, new functional requirements have evolved and pressure is now being applied to system developers to build systems that can grow with the evolving requirements.

The new functional requirements for staff cluster around the need to make routine administrative tasks more efficient through automation and interface development and improved data analysis and reporting.

Usage statistics harvesting is a prime example of the need for automation of routine administrative tasks (Chandler & Jewell, 2006). A critical need is integration with other local systems like the integrated library system (ILS), the link resolver engine and knowledgebase and perhaps most importantly, integration with the administrative functions of the content providers and subscription agents that provide access and licensing services. Another critical need is for standardized license data to facilitate the review of terms for proposed resources and automated population of the ERM system (NISO, n.d.). Librarians are also looking for enhanced reporting functions that maximize the value of harvested usage data and other locally held data such as cost. Access to acquisitions data within the ERM system for enhanced reporting and troubleshooting has arisen as a functional need for ERM systems (Digital Library Federation, Acquisitions Interoperability Subcommittee, 2007).

As the primary functional requirements for staff have been met, the need to provide data from the ERM system to library patrons has become an increasingly important functional requirement. Libraries are looking to provide the terms and conditions of use at all points of access to content. These access points include link resolver displays, A-Z lists of electronic journals, the online public access catalog, metasearch environments and the new discovery services platforms such as Encore from Innovative Interfaces and Primo from ExLibris that provide an enhanced resource discovery and delivery experience for patrons.

BACKGROUND

Before the appearance of commercial ERM systems, electronic resource management was typically handled by a combination of automated and non-automated solutions. Libraries used analog management systems to track contact information and the printed versions of contracts. Some librar-