ABSTRACT

Management of electronic resources requires more features and fields than legacy integrated library systems (ILS) can provide. Relationships between title, package, platform and publisher, incident and breach records, changeable holdings, license, and access restrictions cannot easily be captured. Usage combined with cost is needed for collection development and public services decisions. This chapter demonstrates how the Electronic Resource Management Initiative reports, library-developed systems, and existing and in-process standards help the continuing development of compensating electronic resource management systems and their integration into ILS. Much more work and discussion is needed in order to maximize the use of these resources and their data. Modular, extensible, standards-based tools will supplement legacy ILS and their valuable business and bibliographic data. Vendor-provided bridging tools, also based on these standards, will enable and maximize data movement between systems.

INTRODUCTION

During the last 20 years, libraries have witnessed an unprecedented growth in the availability of electronic content, particularly among serials. A survey done by Duranceau and Hepfer in 2002 of six institutions found that average e-collection growth had been 1,100% in 5 years (2002, p. 317). In 2003, 75% of scholarly journals offered online access as did most commercial publishers (Cox & Cox, 2003).

Budgets reflected this shift in emphasis. In 1994-1995, 63 ARL libraries reported spending $11,847,577 on electronic serials; nine years later in 2003-2004, 110 ARL libraries spent $269,601,241. Over ten years ago, 82 ARL libraries reported
electronic resources expenditures as 3.6% of total materials expenditures, compared with 111 ARL libraries in 2003-2004 averaging 31.33% (Kyril-lidou & Young, 2005, p. 21). The numbers are most likely higher today. In an effort to cope with rising costs, libraries formed consortial buying arrangements to purchase these resources.

Where libraries had owned materials, they now provided access. This represented a shift of paradigm proportion. In the new world of electronic resources, libraries discovered that more processes, people, and data collection were involved. The straight line from the subject selector to acquisitions to cataloging and finally, the shelf no longer worked. Electronic resources demanded licenses, record-keeping of URLs and IP authentication, permissions, and new payment options such as prepayment, packages by discipline, pay per view, and micropricing (Schulz, 2001), along with many other needs. While MARC 856 fields were added to catalogs beginning in 1995, dealing with changeable holdings and updating records presented tough challenges to those managing electronic content. As electronic content became available, so did the various options for delivery. For instance, free online with the print subscription was common, as was a subsequent change in subscription to print + online at an additional charge. Technical services departments around the country bravely tried to track these resources in meaningful, useful ways. But they all discovered one common denominator: their integrated library systems were deemed inadequate for these kinds of complicated tasks.

**BACKGROUND**

Library catalogs have struggled to keep up with electronic resources’ needs. Linking to electronic resources led to catalogs repurposed as information gateways, moving beyond an inventory list function. In response to these changes, libraries began to develop supplemental systems to address shortfalls in online cataloging, acquisitions and other systems; these supplemental systems captured data not easily stored or easily retrievable from ILS systems. Administrative data about electronic resources was captured in paper files, spreadsheets and other receptacles, not the catalog. Permitted uses, needed by interlibrary loan and other staff, could not easily be tied to the catalog record. A-Z lists built on Web sites, spreadsheets capturing license terms, administrative information, and package information quickly became unwieldy. Usage statistics, as they began to trickle in, were not easily corralled into cost per use figures, the illusive holy grail of collection development departments everywhere (Medeiros, 2006).

**LOCALLY DEVELOPED ERMS: EARLY DEVELOPMENT**

Libraries began to cobble together supplemental systems and tools in an effort to shore up informational needs required by electronic resources. Using spreadsheets, paper files, databases, and combinations of these, data about electronic resources began to be consolidated on an ad hoc basis, and in response to local needs. Those institutions able to build higher level local systems or tools invested a great deal of time and resources into their projects. Often development involved partnerships between librarians and information technology staff. Development in many cases took significant time. Some systems were used then later discontinued as commercial products began to enter the market. A few systems that were created were never officially launched and others were underutilized due to inadequate data.

These initial early systems attempted to address more than one of the following functions:

1. **Listing/descriptive:** Ability to generate A-Z lists in facile ways, including titles from