Electronic Resource Management Systems: Understanding the Players and How to Make the Right Choice for Your Library

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The Digital Library Federation's Electronic Resource Management Initiative (DLF ERMI) has served as a catalyst for the commercial development of electronic resource management (ERM) systems and functionality. A variety of companies including ILS vendors, subscription agents, and publication access management services (PAMS) are all involved in ERM development. The advantages and disadvantages each type of vendor offers are discussed. Eleven of these companies were surveyed about the availability, compatibility, functionality, and distinguishing features of their ERM system. These vendors also provided their advice and guidance on how a library can begin preparing for implementation of an ERM system. Serials Review 2005; 31:125–140.
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Library professionals today are bombarded with e-journal management solutions. These solutions range from A-to-Z listing services, link resolvers, metasearch tools, and most recently electronic resource management (ERM) systems. This newest option provides a technical services backbone for controlling the entire life cycle of an electronic resource. Commercial ERM systems are currently flooding the market, and as many as ten systems should be available by the end of 2005. Appreciation for this speedy development can be directed to the Digital Library Federation's Electronic Resource Management Initiative (DLF ERMI), which has been instrumental in outlining the requirements for an ERM system. The DLF ERMI report has provided commercial vendors with a blueprint for development by noting functional specifications and best practices for ERM systems.[1]

This column will examine and compare the commercial ERM systems, both integrated and stand-alone, that are available from integrated library system (ILS) vendors, subscription agents, publication access management services (PAMS), and non-profit organizations. The issues of data standards and interoperability are complex, and understanding who the players are in this market is just a beginning. There are definite advantages

and disadvantages for choosing either an ILS vendor or a non-ILS vendor, all of which should be considered when deciding on the ERM system that is best for your library. However, before a library selects their ERM system, there are several ways to prepare for implementation. Vendor suggestions for this process will be provided.

Types of Commercial Vendors/Companies

Currently, there are four types of vendors or companies that offer ERM systems or ERM functionality: ILS vendors, subscription agents, non-profit organizations, and PAMS. Much of the ERM-related discussion and literature has focused on the stand-alone or integrated systems available from ILS vendors. For example, Ellen Duranceau provides an insightful comparison of ILS ERM systems in an Against the Grain article "Electronic Resource Management Systems from ILS Vendors." Duranceau emphasizes the importance of integration and its influence on a library's decision to purchase an ERM system. She notes that libraries may lean towards ILS options or other vendors whose systems the library may already use in order to maximize interoperability.[2] Integration is, in fact, the ILS' greatest distinction, especially in respect to a library's acquisitions and cataloging modules. To meet the ERM demand, many ILS vendors are upgrading traditional ILS modules to enhance communication between these modules and their

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ERM system. This kind of interoperability is something that stand-alone solutions cannot yet compete with. A Dynix white paper notes that traditional ILS systems are partly to blame for this predicament. The authors state that "most [ILS systems] are closed with the exception of a few integration standards, such as SIP2 and NCIP."[3] Of course, as third-party systems become more sophisticated and industry data standards more established, other products will become more competitive.

If the library decides to use its current ILS vendor to meet all of its e-journal management needs, it will also benefit from a proprietary interface.[4] Providing library staff with a consistent interface for all e-journal functions should minimize training and enhance usability. Working with one vendor, however, does have its disadvantages, particularly if you are working with an underdeveloped and undersupported product. ILS vendors are notorious for pushing back release dates for upgrades and system improvements. System development may be a lengthy process. Perhaps, the DLF ERMI work will have a positive influence on the speed of delivering system improvements, but we will have to wait and see.

Another point to consider when examining an integrated ERM system from an ILS vendor is whether or not your library even uses your ILS' acquisition module. Recently, during a discussion on SERIALST, one librarian noted that many libraries do not even use their ILS' acquisition module for their serials.[5] If your library has developed its own system for handling invoicing and budgeting, then you may have the luxury of choosing an ERM system based on functionality rather than interoperability.

An ERM system will only be as accurate as the data input into the system, and therefore even a fully integrated ERM system from an ILS vendor requires e-journal-related data. This is the point where third-party companies such as PAMS or subscription agents may have the advantage. These types of companies quickly responded to fill a niche in the e-journal management market with listing and data tracking services. Serials Solutions representative Mike Showalter notes that "one of the key features of a good ERM product is the availability of a knowledge base of resources."[6] Many ILS systems do not manage their own knowledge base of resources. Those that do often function as a third-party vendor themselves by offering stand-alone products such as A–Z lists and link resolvers to supplement another vendor's ILS systems. Showalter believes "most buyers of ERM systems will continue to look to companies such as Serials Solutions for the data to populate it, and will continue to need our extensive metadata customization capability to actually manage the bibliographic information about the resource."[7] The DLF ERMI Report also discusses the role of non-ILS companies in filling user needs for accurate e-journal data and title lists. The report notes that "companies like Serials Solutions, TDNet and EBSCO have begun to offer various services aimed at filling these sorts of needs."[8] In addition, users may feel that third-party systems are the better option for supplying their ERM system because they are more experienced with the complexities of e-journal data. This point was acknowledged during a discussion on the SERIALST mailing list. One librarian had this to say about dealing with a third-party vendor in respect to an ERM system: "They have all of my accurate up-to-date data and it is already in a grouped format by provider. They also know our business. They are intimately associated with serials and serials providers."[9]

Other than the advantage of a knowledge base (which some ILS vendors such as Ex Libris have also created for their e-journal management products), many of the issues specific to third-party stand-alone ERM systems apply to ILS stand-alone ERM systems as well. The library customer has the option to choose from the best of these stand-alone systems. If the library customer chooses to use the same vendor for both their ERM system and another e-journal management solution, such as a link resolver or A-to-Z list, the customer will benefit from this integration. This easy integration of e-journal management tools "will mean less duplication of data entry and more precise control over the resources they want to deliver to patrons."[10]

Of course, the issue of interoperability may still be unresolved in respect to the ERM system's ability to interact with a traditional ILS' acquisition module. In addition, many of these stand-alone ERM systems may not be interoperable with other vendors' ILS systems, third-party link resolvers or A-to-Z lists. Data compatibility and adherence to data standards such as Extensible Markup Language (XML), ONline Information exchange (ONIX), and Simple Object Access Protocol (SOAP) are necessary for effective ERM system integration. Even if the ERM system can communicate with other e-journal management products, it may be some time before this system is interoperable with another ILS' acquisitions module. Therefore, if maintaining acquisition data is important to the ERM system user, that user might maintain two acquisitions systems, one for print through the traditional ILS and one for electronic resources through the ERM system. Another possible disadvantage for third-party ERM systems developed by PAMS, subscription agents and Gold Rush (an electronic resource management solution developed by the Colorado Alliance of Research Libraries), may arise if the library is unwilling to purchase a hosted solution. Most of the non-ILS vendor ERM systems discussed in this column are hosted solutions. Libraries may find that they feel uncomfortable storing their acquisition and licensing data on someone else's server.[11]

When considering ERM systems or functionality developed by subscription agents or Gold Rush, one should note that these organizations' ERM services are tied to additional services provided by that company. Depending on your library's unique needs, these services can be viewed as an advantage or disadvantage. In the case of the subscription agent, a library would have to use that vendor as its subscription agent in order to benefit from its ERM functionality. Working as the library's subscription agent does provide the agent with access to the library's subscription profile. However, if