

Electronic Resource Management: ELAG Workshop

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Electronic resources, including electronic journals, "aggregator" services and citation services that also provide full text, consume a larger and larger proportion of library acquisitions budgets. Yet these resources are typically difficult to manage for a number of reasons:

- **Acquisition processes** for electronic resources typically are more complex than for printed materials. They may involve trials that require supporting technology, license terms that require negotiation, and systems configuration to ensure that users have access to the material for which a license has been agreed. A single information source, such as a journal, may be available individually or as part of different packages from several different sources using potentially several different interfaces. Access to an electronic version of a serial may depend on a print subscription so the two forms of material need to be linked for acquisitions purposes, and of course budgets for print and electronic materials must be consolidated for financial control.
- Libraries may participate in **consortia** for acquiring materials, further adding a layer of complication. Some titles or collections may be purchased for the entire consortium and others simply purchased for individual libraries through a consolidated order process. Costs must be allocated to different member libraries based on a variety of possible criteria.
- Different **licensing restrictions** for different publisher, suppliers or aggregators means that detailed information must be recorded and tracked in order to control access to electronic resources. Licensing information needs to be made available to users and to a wide variety of library staff. Ideally, licensing information should be actionable, that is to say, it should be driving the process of controlling access to the electronic resource itself.
- Users in many libraries rely more and more on electronic materials, yet **resource discovery** is not simple with electronic materials. Serial titles may have records in library catalogues, but catalogues may only include print titles, not all titles to which the library has electronic access. Libraries may supplement the catalogue with separate web pages of alphabetical or topic-based lists of serial titles. Holdings information may be difficult to keep up-to-date when new issues of electronic journals appear or when the titles or coverage periods available through different bundled services of aggregators change. In most libraries, electronic journal articles can only be directly searched through external electronic resources such as abstracting and indexing services, but they may also be located using local link resolver services. Keeping all these sources up-to-date and accurate, and maintaining ease of use for the end user can be a considerable challenge.

- Getting access to electronic resources requires **technology and technical support** not required for print materials. Authentication and authorisation services need to be set-up and maintained, in many cases both for on-site and off-site use by legitimate users. This may need to be done even before titles are licensed during trial or test periods. When users cannot access an electronic resource, local trouble-shooting will be required, whether the fault is with the information vendor's system, whether it involves a local system problem or whether it involves miscommunication such as failing to renew on time or to update IP address information.
- Libraries already have complex **automated systems**, including integrated library systems, library portals, digital asset management systems or link resolver services. Libraries may be producing alphabetic or topic-organised lists of electronic journals from other sources. These systems need to be integrated in some measure with electronic resource management systems in order to provide users with a coherent, easy-to-understand environment and staff throughout the library with a consistent service for consulting and maintaining information.

These are some of the challenges that Electronic Resource Management systems claim to address. 2005 appears to be an important year in terms of adoption of ERM, with a number of library systems vendors now marketing ERM systems, and others have announced products. This workshop will allow participants to discuss their potential interest in ERM, what they expect ERM systems to do, and how they anticipate integrating these systems into an increasingly complex information management environment.

The workshop will discuss a number of the following topics:

1. Why Electronic Resource Management?

A number of issues have been raised as presenting problems for the management of electronic resources. What are the issues that are most pressing for your library? What factors will be the most influential in encouraging your library management to consider a system for electronic resource management? Is your institution actively considering an ERM system or do you expect it to in the near future? Why? What benefits do you expect to see from an ERM at your institution?

2. Selection and acquisition

What kinds of entities and relationships are required to model acquisitions in an ERM system? What workflow functions are necessary in your library setting to manage electronic resources through their entire life cycle? What are the most important functions to support, and what functions would be in the 'nice to have' category? What kinds of workflow issues need to be addressed, and what kinds of automated notification are required? How do you manage links between print and electronic subscriptions as, for example, in the case of cancellation? How does long-term archival access enter into the acquisitions process, or does your institution not negotiate this point? How do consortial relationships impact acquisitions processes, and how should these be modelled in ERM systems? What kind of responsibilities does your library accept in terms of long term or archival availability of electronic materials that the library doesn't own but only licenses for access-- and how does that affect ERM?

3. Licensing and access management

Licensing has largely replaced traditional copyright law as a way of controlling access and use of electronic resources. What issues are involved in managing licensing agreements in your library? Who are the actors involved in the process? How do licenses for different types of electronic resources, packages of electronic resources or different types of services differ? What kinds of data elements are required to describe license agreements? Who in your institution needs to have access to this kind of information? Access control is required to ensure that the licensing terms are enforced. What kind of connection and access information needs to be stored and for what kind of entity? What relationship should there be between licensing and access control within your library's electronic environment? How does this relate to institutional authentication services outside of the library as well as to authenticating to external electronic resources?

4. Resource discovery and use

The ultimate purpose of managing electronic resources is of course to help users make easy and effective use of those resources. In what ways do users in your library want or need to find electronic resources and how can libraries support these different needs? What do users need in order to know exactly what is available to them and when, including print materials, new issues of e-journals, new titles added to a package or technical problems with a current electronic resource? Is there a need to create descriptive metadata other than that already found in other library systems such as the library catalogue? Where do course- or discipline-specific guides fit into the picture when ERM is combined with other finding tools? How should licensing information be presented to users so that they both know and understand their responsibilities? How do you make clear to users that the same resource may be available in multiple formats via multiple interfaces via different suppliers? Do users care? How and where should usage information be tracked in order to gauge the value of electronic resources to users, and hence to the institution?

5. Integrating ERM with library systems and structures

Libraries already have integrated library systems (ILS), and they may also have a library portal, a content management system, a digital asset management system, a local link resolver service or a proxy service. Information about electronic resources may already be found in any one or even in all of these systems. What is the relation of ERM systems to these other services? Is the ERM a module within an ILS or a standalone system? Where do ERM systems need to connect to these other systems in order to provide users with a coherent, easy-to-use environment and staff with a 'single point of maintenance for bibliographic and administrative data'? What needs to be done to ensure interoperability between all these systems? Will libraries be forced to deal with a single vendor in order to avoid integration problems and redundant, potentially inconsistent data?

Finally, integration can also be an issue on an organisational level: how well does ERM integrate with current organisational structures and professional roles and how will the introduction of such systems change the roles of acquisitions librarians, electronic resource specialists and library systems staff?

Suggested Reading

The most comprehensive source of information on ERM is the report of the Digital Library Foundation. Workshop participants might want to read the main report and at least study briefly *Appendix A -- Functional Requirements*, *Appendix B -- Workflow Flowchart* and *Appendix C -- Entity-Relationship Diagrams*. You may find it helpful to bring copies of the latter three documents along to the workshop (e.g. as PDF files on your laptop).

Digital Library Foundation. *Electronic Resource Management: Report of the DLF Initiative*. DLF, 2004. Available at <http://www.diglib.org/pubs/dlferm0408>

Other resource which you may wish to look at include:

California Digital Library. *CDL Electronic Resource Management Needs Statement*. [Draft 1/16/04]. Available at <http://libraries.universityofcalifornia.edu/sopag/appen05needs.doc>

Chandler, Adam and Tim Jewell. *A Web Hub for Developing Administrative Metadata for Electronic Resource Management* [Web site]. Available at <http://www.library.cornell.edu/cts/elicensestudy/home.html>

Czyzyk, Mark and Nathan D.M. Robertson. "HERMES: The Hopkins Electronic Resource Management System" *Information Technology and Libraries* 22 (1). Available at <http://www.ala.org/ala/lita/litapublications/ital/2201czyzyk.htm>

Ellingsen, Mark. "Electronic Resource Management Systems" *Liber Quarterly* 14 (2004): 313-321.

Sadeh, Tamar. "Developing an Electronic Resource Management System: Verde from Ex Libris". *Liber Quarterly* 14 (2004) : 322-334.