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# Managing the Electronic Resources Lifecycle: Creating a Comprehensive Checklist Using Techniques for Electronic Resources Management (TERMS)

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## Abstract

*One of the core functions of the electronic resources librarian (ERL) consists of managing various stages of the electronic resource lifecycle. In order to do this effectively, it is extremely helpful to have a detailed guide on hand. An e-resources acquisition checklist can assist the librarian in covering all aspects of evaluation, acquisition, renewal, and cancellation of e-resources such as databases, e-books, e-journals, and more. Such a tool can be indispensable, especially for new ERLs attempting to get a grasp on the logistics of electronic resources management. Using the newly created Techniques for Electronic Resource Management, the author details the process by which librarians navigate the e-resources lifecycle.*

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The e-resources acquisition lifecycle has become increasingly complex and follows more of a circular, iterative process than the workflow in place when print resources dominated the library landscape. Especially for a new librarian in the field of collection development and particularly the subfield of e-resources management, this workflow can be overwhelming. A detailed guide is critical for success, and Techniques for Electronic Resource Management (TERMS) serves as a resource created to fill that need. TERMS is a project initiated by Jill Emery of Portland State University and Graham Stone of University of Huddersfield in 2008, building on Oliver Pesch's e-resources lifecycle. Emery and Stone expanded Pesch's model, eventually defining six components or "TERMS" that make up the iterative electronic resource management process. Through crowdsourcing and peer commentary, they solicited feedback, further clarifying and elaborating on each component. During 2012, a TERMS wiki was created based on this feedback.[1] The wiki is an attempt to create an ongoing and continually developing set of best practices for e-resource management in libraries.

The author of this article is currently Electronic Resources Librarian at Montana State University, Bozeman. In 2013, he became involved with the TERMS wiki as a co-editor, with a specific role in editing the section "Acquiring New Content." In this role, the author sought out the opportunity to discuss TERMS and promote this new resource at the North American Serials Interest Group (NASIG) 28th Conference in 2013. In addition to the TERMS wiki, the project has recently been covered in an entire issue of *Library Technology Reports* devoted to TERMS.[2] Librarians interested in contributing to the ongoing development of TERMS are encouraged to contact the appropriate section editor designated on the wiki.

TERMS can be thought of as a detailed checklist outlining workflow across the e-resources lifecycle. There are a variety of reasons why such a checklist may be of value: to create a reference point for the collection development team, to organize workflow and create efficiencies, to foster effective communication within and across teams throughout the library, to exercise responsible stewardship of resources, and to document iterative processes that can be improved. This checklist could take many forms, depending on the preferences of individuals and how information may be best represented and manipulated. It could be in the form of a simple Word document or Portable Document Format (PDF), spreadsheet, database, flowchart, resource management system, and so on. The most important consideration is crafting something that will work for you and your organization and will be open to revision in the future.

There are six stages in the iterative e-resource lifecycle as defined by TERMS: investigation of new content, acquiring new content, implementation, ongoing evaluation and access, annual review, and cancellation and replacement review.


**INVESTIGATION OF NEW CONTENT**

When investigating new content, it is important to know what we wish to achieve. Gauging the demand and purpose is critical, that is, whether the resource is being demanded by faculty or students, is intended for teaching, research, or professional development, and so on. Is it in response to a course, research agenda, or part of a patron-driven acquisition (PDA) profile? It may be a simple electronic replacement for print. Specifically in cases of journal

subscriptions, interlibrary loan (ILL) request history is valuable in measuring the potential for future use. Of course, there are always budgetary considerations that may be driving our decision making.

There are a number of preliminary criteria involved in evaluating potential resources. Is the resource appropriate for the intended audience? Does the platform have an intuitive interface? Is the resource configurable with your authentication/Internet Protocol (IP)/proxy mechanism? Are Counting Online Usage of Networked Electronic Resources (COUNTER) usage stats available? Does the resource integrate into the library's Web-scale discovery tool? Are machine-readable cataloging (MARC) records available and what is the quality and cost? What kinds of administrative control are available to the librarian on the publisher's platform?

In some cases, it may be advantageous to form a team to investigate new content. Those on the team may include an e-resource manager, collection development librarian, budget manager, subject liaison librarians, or faculty outside the library. Single journals and smaller purchases may not require a team, while very large projects may require a project template.

During the review and trial period, there are a number of important considerations. Can the demand be satisfied with existing resources? Conducting overlap analysis can be very helpful in identifying coverage and duplication across other resources. A librarian may take advantage of product reviews and comparison studies such as the *Charleston Review, Choice*, and so on. The timing and length of the trial are important. For instance, summer may not be the best time, and two months is better than two weeks in order to gain more participation and more feedback. There are many ways to publicize a trial, such as a blog, wiki, Web, e-mail, or even word of mouth through liaisons. One may attempt to gather usage stats for a trial, as well.

Once the evaluation moves further along, it is advantageous to communicate back to the provider. Asking if consortial arrangements are available is worthwhile, unless deeper cost reductions may be realized in individual purchases. Multi-year deals are also worth pursuing, if feasible. Understanding the fee structure and contract is crucial, and librarians should not be timid to inform the vendor when looking at similar products, as this may gain more favorable terms or pricing. Always refer back to the specification document in order to make sure everything is on track. Nearing the end of this first stage, the resource can be scored against the original criteria and the criteria themselves can be weighted, based on institutional priorities. Such a review can take anywhere from a few hours to months, depending on the resource.


**ACQUIRING NEW CONTENT**

In this second stage, it is important to check if the library and vendor are in agreement as to all the criteria originally laid out. Is a purchase order necessary? Is there a specific contract for purchasing terms? What is the annual renewal process? Are special details necessary for certain types of resources, such as demand-driven acquisition (DDA) programs?

During contract negotiation, there are a number of considerations. It is crucial to create a list of "deal breakers" and "must haves," defining what items on a license constitute "red flags" and which elements must be present in order to sign. There are some alternative options besides traditional licenses that are worth mentioning, such as employing a model license that

the vendor might adapt to, or utilizing the National Information Standards Organization's Shared Electronic Resources Understanding (NISO's SERU) in lieu of a license altogether.[3] When it comes to pricing, it is advantageous to have the vendor base the price on the full-time equivalents (FTE) that will actually be using the resource versus the total FTE of the institution. It may also be worthwhile to conduct overlap analysis at this point and see if the vendor will adjust the price based on what percentage of the content is covered in the library's existing resources. Remember that everything is negotiable!

During the final stage of licensing, you will want to conduct a comprehensive license review before forwarding to the signing authority. Do not rush! Make sure you understand the legal terms so that you can protect yourself and your institution. It is wise to store a countersigned electronic copy of the license on a server that is backed up, and to record the administrative data in the electronic resource management (ERM) system or appropriate system. Such data may include payment terms, service terms, license terms, and renewal details.

## IMPLEMENTATION

The first stage of implementation involves testing the product. You want to make sure the Uniform Resource Locator (URL) is stable and is pointing to the appropriate interface. Proxy and Internet Protocol (IP) access will need to be set up and all the relevant access points need to be tested. These may include the A to Z journal list, catalog, database list, LibGuides, and Web-scale discovery tool. The admin interface is worth checking out in order to ascertain that usage statistics and Open Uniform Resource Locator (OpenURL) is configured properly. If applicable, also make sure that MARC records look good and are imbued with enough metadata for discovery.

Depending on the library and the resource, marketing may actually involve a marketing plan. Consider the needs, wants, and interests of your users and target specific user groups, especially with discipline-specific resources that will be valuable for certain groups. Identify the objectives of the service or product and develop a marketing matrix that outlines the actions, responsibilities, and timing associated with the marketing plan.

Training and documentation are important in order to provide users with the understanding necessary to use the new resource. If you are replacing an older resource, be sure to update any guides and Web pages. Library documentation about the new resources is an option, but vendors usually have good documentation and other resources in the form of free webinars, podcasts, conference calls, and even on-site visits. They want you to use their resources and are usually happy to provide the tools that will help boost usage, so that you will retain those resources.

The actual launch of the resource may involve a soft launch for larger projects, such as a Web-scale discovery tool, or may be launched in one fell swoop. Before and after the launch, feedback can be gathered via surveys, focus groups, statistics, and other measures. Compare multiple access points for the resource and make sure they are all working consistently. The timing of the launch is also important and has an impact on the success of the marketing effort.

**ONGOING EVALUATION AND ACCESS**

Once the resource is in place, it is important to continue to evaluate it over time. In order to gain a useful picture, set consistent data points to measure across different resources over time. COUNTER-based statistics provide standardized metrics for measuring use of journals, databases, e-books, and other formats.[4] The Journal Usage Factor project in the UK has taken real usage data from COUNTER-compliant publishers in order to explore how online journal usage statistics might form the basis of a new measure of journal impact and quality.[5] The Institute for Scientific Information (ISI) Impact Factor and Eigenfactor differ from previous measures in that they provide metrics for evaluating the quality and overall importance of individual scientific journals. Such measures can factor into resource evaluations in conjunction with COUNTER usage stats. Other aggregated library statistics pulled from Web pages, the discovery tool, OpenURL, or the integrated library system (ILS) may also be helpful in forming a complete picture of use.

We can check the implementation according to a review schedule in order to make sure access is enabled and nothing is awry. This can be done on either a monthly, quarterly, or annual basis, and custom alerts may be set up for this purpose in the library's ERM system. Check links at various access points and via remote authentication. Check for full-text access of content and also for general usability issues that may arise when navigating from the library website through to a provider's platform.

At various points in the e-resource lifecycle, we can ask the users if their needs are being met with a particular e-resource. There are structured methods for acquiring feedback, such as LibQual+ and formalized surveys. Unstructured examples include Web comments and the data compiled from tracking e-resource access issues. Comments such as this can be recorded in an ERM system or spreadsheet in order to represent them in an organized manner. Regardless of the methodology, we want to develop a consistent approach that lends itself to coherent reporting and analysis.

It is advantageous to proactively monitor platform changes and journal title transfers between publishers. The Transfer Code of Practice has aimed to standardize how publishers report this, and mechanisms such as the Enhanced Transfer Alerting Service enable librarians to gather latest transfer notifications via Really Simple Syndication (RSS). This way, during the renewal period, information is on hand and there is not as much guesswork. The ERM system and subscription service can aid the verification effort as well. It is difficult for one person to keep track of this type of information, and it is beneficial to employ a team approach to managing subscriptions and exercising quality control.

Maintaining feedback channels with vendors and communicating problems and issues is certainly important. It's a good idea to keep detailed records on each provider, including correspondence, scheduled maintenance, and specific problems that arise over time. This information may factor into the renewal decision, and such feedback may even help to improve the product down the road. Some vendors have defined user groups that form active communities on the Web, and it is often helpful to become a part of the conversation and gain an active voice.

**ANNUAL REVIEW**

One of the most important aspects of the annual review stage is to know the schedule of renewal for each resource and to plan accordingly. It's important to check the license for the required notice period for subscriptions, so that you will have time to notify the publisher or provider of non-renewal. Renewals may occur throughout the year depending on the resource, so it may be efficient to review resources in batches, for instance, on a quarterly schedule. It is typical to review new resources more critically, but established resources should also be reviewed closely to avoid legacy resources that are no longer providing sufficient value. In addition to other criteria, one of the most obvious is the increase in price from the previous year. Based on the renewal timeline, input can be solicited from subject teams so that qualitative data are gathered, in addition to quantitative data.

A more proactive approach is to contact the vendor in advance of the renewal invoice, so that costs and any new terms and conditions may be reviewed. Prices increases can be analyzed against the existing agreement to make sure the rate of increase is in keeping with the agreed upon terms. This period also offers an opportunity to consider other pricing options if available. For instance, perhaps it would be advantageous to move from a simultaneous use model to a site license, a subscription model to a one-time purchase, or from an annual license to a multi-year deal.

As mentioned previously, COUNTER statistics are very important is making informed decisions, and this is particularly true at renewal time. Of course, some statistics are better than none at all, and it is possible to massage non-COUNTER compliant stats into COUNTER format—although this can be labor-intensive. When examining such statistics, we can compare resources along various measures such as hits, searches, and full-text downloads. COUNTER metrics have become even further nuanced in recent releases, with distinctions between current journal usage, or, Journal Report 1 (JR1) and archival journal usage, JR1a. There are many possible analyses, and based on usage statistics, we can make a variety of determinations. We might flag a resource for cancellation, realize that more training or outreach is needed to promote a resource, or choose to increase or decrease the number of simultaneous users licensed for a particular resource.

When communicating information to stakeholders, whether inside or outside the library, it is important that data are represented clearly. Longitudinal data across years are more valuable and serve to set numbers into the context. We can perform overlap analysis using tools built into the ERM system, or utilize open source tools such as Joint Information Systems Committee of the United Kingdom Academic Database Assessment Tool (JISC UK ADAT) and CUFTS from Simon Frasier University.[6,7] Atypical resources such as streaming video or data sets might be harder to compare to journal packages and databases, yet the latest release of COUNTER is making strides in accounting for such resources. In addition to usage, we might also take into account other factors, such as errors and usability issues, in our final analysis.

**CANCELLATION OR REPLACEMENT REVIEW**

Ultimately, we must make a choice to retain, renegotiate, or cancel each resource. Reassessing the market for substitutions may be advantageous in some cases if the content is valuable but the package or platform is suboptimal. If a new license is required at this stage, it should be reviewed to be sure that there are no game changers. Talk of cancellation may open negotiation with the vendor. In truth, we should expect flexibility from vendors especially in this time of tight budgets and multiple priorities across campuses. Finally, we might look internally elsewhere on campus for funds if the library can no longer support a resource that is valued by certain sectors in the community.

**CONCLUSION**

In the world of e-resource management there are many pieces to juggle, and we often find ourselves overwhelmed. A resource like TERMS can assist in navigating the e-resource lifecycle, particularly for those who are new to this area of the profession. The TERMS wiki and *Library Technology Reports* go into much greater detail. These resources will be valuable into the future, as TERMS is updated and improved with input from the user community.

**Notes**

1. Jill Emery and Graham Stone, "WikiTERMS," http://library.hud.ac.uk/wikiterms/Main_Page accessed June 27, 2013).

2. Jill Emery and Graham Stone, "Techniques for Electronic Resource Management," *Library Technology Reports* 49, no. 2 (2013).

3. National Information Standards Organization, "Shared E-Resource Understanding," http://www.niso.org/workrooms/seru (accessed June 27, 2013).

4. COUNTER Online Metrics, "COUNTER—Counting Online Usage of Networked Electronic Resources | Home Page," http://www.projectcounter.org/ (accessed June 27, 2013).

5. United Kingdom Serials Group (UKSG), "Usage-Based Measures of Journal Impact and Quality | UKSG," http://www.uksg.org/usagefactors (accessed June 27, 2013).

6. Joint Information Systems Committee, UK (JISC) Collections and Center for Research Libraries, "Welcome to ADAT | Academic Database Assessment Tool," http://adat.crl.edu/ (accessed December 31, 2013).

7. Simon Frasier University Library, "CUFTS: Open Source Serials Management | reSearcher," http://researcher.sfu.ca/cufts (accessed June 27, 2013).