How to Build a Better Mousetrap: Developing an Easy, Functional ERM

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Need and Conceptualization

The need for various stakeholders in the library to access licensing information is critical when certain departments are working with electronic resources. For example, liaison librarians receive calls from faculty wondering whether they can put certain items within a virtual learning environment; instruction librarians need to know how many simultaneous users are available for a specific resource, so they know how to plan instruction sessions; and interlibrary loan librarians and reserves staff are sometimes unclear as to whether an item can be lent or added to an e-reserves system. These questions could simply be answered by looking within the licensing module of our ERM, which is Serials Solutions. However, while Electronic Resources librarians and staff find the product simple to use, those who do not work within the Resource Manager interface every day find the information-seeking task somewhat daunting.

In an effort to increase transparency and demystify the licensing conundrum, several librarians at the University of Houston Libraries sought a way to make this information easily discoverable. The Resource Discovery Systems department coordinated with our Web Services department to find a solution and worked with liaison services librarians as well as the interlibrary loan and reserves departments to determine what information would need to be made available to answer their licensing questions. The end result was a web-based database with very records for each license and fields that provide information that staff need to do their job efficiently and effectively. We entitled this new resource the Electronic Resources License Repository or the ERLR.

The ERLR contains some fields that correspond to Serials Solutions’ Resource Manager’s licensing module. These fields were taken directly from the Digital Library Federations Electronic Resources Management Initiative (2004) in order to simplify the translation between the two sources of licensing information. These fields include definition of authorized users, number of simultaneous users, perpetual access, and cancellation policy, as well as the right to interlibrary loan and include electronic materials in course pack and/or course reserves. We added additional fields to supplement information that was not present in the DLF ERLMI document including Blackboard use, a notes field where we enter whether a resource comes as part of a package subscription, and a field to indicate if the vendor supplies COUNTER compliant usage statistics. These additional fields make the ERLR more useful to our target audience than the ERM ever could have been.

Development

Although the ERLR wasn’t a very complex system to build, the UH Libraries do have talented developers within Web Services. The tool, which is linked off the UH Library’s Intranet, was built with HTML and CSS along with the CakePHP framework and uses MySQL as its data source. There was also the need to create both the user interface and the admin interface. Web Services used a Central Authentication Service (CAS) for library staff to authenticate into ERLR. CAS, which is a single sign-on service, was already being used within the Libraries for multiple other applications, so this gave the Resource Discovery Systems department the security they needed as well as the ability for anyone in the library to easily sign-in.

As for roles, Web Services maintains a Staff Directory System (SDS), a database-driven tool maintaining library staff information including title, e-mail, phone, department, subject areas, and much more. They used that tool to pull a user’s department from their SDS profile. All members of the Resource Discovery Systems
department were assigned the role of Admin, while all others were assigned the role of User. Because they pulled this information dynamically from the SDS, Web Services does not ever have to add new Admin users when staff leave or join the Resource Discovery Systems department.

Admin and User roles obviously have different capabilities within the ERLR, but both have the ability to perform a simple keyword search that searches across a majority of the metadata fields. Additionally, Admin can search both active and inactive license records. Admin cannot only create new or edit existing records, but they can also upload PDFs. They can create tips for each field to help users better understand what each field means. They can also download a .csv file for manipulation of the data. There is also e-mail functionality built in that grabs key information and a link to the record. Admin can also upload database statistics (csv or PDF files) into the system to help with transparency of database usage for Liaison Librarians. Finally, Web Services also has Google Analytics on the ERLR to monitor usage.

**Feedback**

After the ERLR was created and usable, the Resource Discovery Systems department had to populate the database with all of our license agreements and fill out the fields for each record. Before doing so, we elicited feedback from relevant staff members who would be using the database once it was live. The purpose of having a custom database is to make it as relevant as possible to end users, so we considered their feedback to be very important. A lack of user feedback can result in a failed and under-used product, which the creators wanted to avoid at all costs. The librarians in the Resource Discovery Systems department chose ten licenses to scan and entered the appropriate data into the license repository. Then, we sent it out to library staff in Liaison Services and Information and Access Services for their feedback. We believed liaison librarians would rely on this database to communicate with faculty about electronic resources usage rights as well as analyze licenses for collection development purposes. We also saw the ERLR being a go-to place for Information and Access Services staff to find out if items could be loaned or placed on reserve.

After compiling feedback from relevant users, we had a meeting with the Web Services department to discuss the changes and enhancements we wanted to see in the ERLR. Staff from Information and Access Services had several suggestions to increase the clarity of the usage rights fields in the repository. Based on their recommendations, we changed the wording of the usage rights fields so that they were framed as questions rather than statements. Instead of having a ‘yes’ checkbox for Interlibrary Loan, we changed it to “Is ILL allowed,” and did the same for course reserves, course packs, and Blackboard. The Liaison Services staff suggested adding additional fields to increase understanding about the resources associated with a particular license. They also wanted to know if a license was associated with a consortia package. Based on their requests, we added a field for ‘Resources’ in which we would list the databases associated with a particular vendor agreement. We also added the field “Part of Consortium,” with options to choose GWLA, Amigos, or other.

One additional functionality enhancement that the Resource Discovery Systems department requested was to be able to add a license clause to a field even if the answer to a particular usage right was ‘No.’ In the initial rollout of the ERLR, a license clause could only be added to the text box associated with a field if the ‘Yes’ checkbox was checked. We feared that if they marked a certain answer as ‘No’ and did not put the clarifying license clause, some staff members might interpret this as a ‘silent’ clause and do prohibited things anyway. We wanted to add this feature as a means of avoiding any possible license breach and to increase awareness of prohibited uses that exist in several license agreements for staff that do not have experience with licensing. The Web Services department quickly enhanced the ERLR per the Resource Discovery Systems department’s suggestions.

**Workflow**

Once the ERLR was ready to be populated, we acquired a scanner from administration, and we
hired two student workers to scan all of our license agreements. While we were waiting on the scanner and the student workers, there were several steps that had to be completed to expedite the process of entering scanned licenses. We read each license agreement and filled out two worksheets for each: one representing the fields in the ERLR and the other representing the fields in the licensing module of our ERM. This ended up being a good opportunity to identify outdated licenses, many of which dated back to the 1990s, organize our license files, and clarify usage rights for vague licenses. Any time a license did not address a particular term in the ERLR or the ERM, we would contact the vendor and ask them explicitly if they allowed that type of usage of their electronic content. This allowed us to make the license repository as clear and robust with information as possible.

Once we acquired a scanner, we hired two student workers to assist us with the scanning portion of the project: one undergraduate student and one graduate student. They scanned the licenses and named them according to a naming convention. They saved the scanned license agreements on the internally shared computer drive as a temporary storage location. The student workers created PDFs of the licenses, OCR'd the text, and copied and pasted the relevant license clauses from the worksheets into a Word document so we could easily populate the ERLR and ERM. As the students scanned the licenses, we entered them into the two databases. This workflow will be ongoing as we acquire new resources and sign future license agreements.

While we were doing this project, Serials Solutions added a feature to their ERM to make selected licensing terms display from the public interface by clicking a “Terms of Use” link next to a journal title. Staff working with course reserves and interlibrary loan were particularly excited about this new feature, because they would be able to access licensing terms at the journal-title level and would not have to figure out which license a particular title was associated with. We wanted this feature to be as useful as possible, so we had a meeting for anyone who was interested in using this feature. Representatives from Liaison Services, Information and Access Services, and Web Services attended the meeting. From that meeting we decided which terms to display that would be most useful to staff using it but, at the same time, would not confuse end users. Once we determined which fields to display, we built this step into our workflow for entering licenses into the ERM.

Next Steps

After developing a system, especially one that was designed to meet very specific needs, it is important to assess its usability and usefulness to end users. Before assessing the ERLR, we want to make sure the users have time to work with it, so they can give us useful feedback. After one full semester of ILL and course reserve requests and instructions sessions and after the library's annual “Serials Review,” we will survey our target audience to understand how they are using the ERLR and what problems they encounter. We will also consult the Google Analytics that run on the system to try and understand trends in user behavior. Using the information we collect during assessment, we will recommend additional features and changes to the ERLR to meet our users’ expectations and make the resource as useful as possible.