The importance of linking electronic resources and their licence terms: a project to implement ONIX for Licensing Terms for UK academic institutions

This article looks at the issues facing libraries as they seek to manage and communicate rights negotiated in an ever increasing number of licences for online resources. It addresses the work that JISC Collections and EDItEUR have been engaged in to develop machine-readable licence expressions of JISC Collections licences that are suitable for import into library systems. The article explores the potential benefits such work offers to the UK academic community, as well as the issues and challenges JISC Collections has faced in this work.

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Introduction

This article looks at the issues facing libraries as they seek to manage and communicate rights negotiated in an ever increasing number of licences for online resources. It addresses the work that JISC Collections and EDItEUR have been engaged to in develop machine-readable licence expressions of JISC Collections licences that are suitable for import into library systems. The article explores the potential benefits such work offers to the UK academic community, as well as the issues and challenges JISC Collections has faced in this work.

The issue

JISC Collections has been providing centralized negotiation and licensing on behalf of UK universities, colleges and research councils for a number of years. Currently, JISC Collections is responsible for over 60 agreements for online resources such as databases, e-books and archives in addition to 20 e-journal agreements through NESLi2. All these agreements are based around the JISC and NESLi2 model licences[1] whose provisions allow students and staff to make effective use of online resources for learning, teaching and research, as well as protecting the rights of publishers, service providers and content owners.

Negotiating these provisions is only part of the work, however, as the experience of JISC Collections has shown. More important is communicating these provisions and what they mean to the staff and students who will eventually use the online resources. In order to do this, JISC Collections has in recent years provided institutions with guides and made a short film on the model licence. These efforts were aimed at explaining as clearly as possible who was allowed to use a resource and what they could do with it.

Whilst useful, such tools are limited by their generic nature and are unable to capture the difference in terms between the model licence and the one that results from negotiation.

This lack of distinction has a particular impact at the institutional level where the management of an ever increasing number of licences is an issue in its own right. There is the additional complexity of complying with terms and conditions from various sources that may be inconsistent not only in their phrasing but also their interpretation. It is therefore not surprising that many institutions may opt to be overly cautious in their interpretation and not take advantage of the rights that they have been granted in a particular licence. This not only represents a waste of the time and money that has been expended in the careful negotiation and review of licences, but also the failure to derive the full value from these online resources by exploiting the possibilities in learning and research and by making these available to the widest possible number of users.

In an environment where academic libraries spend much time and effort demonstrating the value that they bring to their institutions, there is an expectation that the online resources they license on behalf of those institutions will do the same.

There is thus an increasingly urgent requirement on the part of libraries to load licensing terms into a library's management systems or to receive them in a standard machine-readable format, link them to the appropriate digital resources and communicate them to users. This need was emphasized in a series of licensing workshops organized by JISC Collections in the latter part of 2006, where delegates made the provision of machine-readable licences their main priority for JISC Collections licensing activity.[2] Those institutions attempting to map their licences for inclusion in ERMs were finding that it was time consuming, and in many cases, they were unsure of the correct interpretation of the provisions in the licence and, therefore, were leaving information out.

ONIX for Licensing Terms as a potential solution

A potential answer to this problem was in development by EDItEUR, the international body for book and serials e-commerce standards. EdItEUR was already working with stakeholders to develop ONIX for Licensing Terms, a new set of formats that will enable the full range and complexity of licensing terms to be expressed in a structured machine-readable form and communicated between systems using a standard XML-based schema.

A Brief History of ONIX for Licensing Terms

Early in 2000, the Digital Library Federation (DLF), a group of large US academic research libraries, launched a survey to identify the major challenges confronting libraries that use information technologies to fulfill their curatorial, scholarly, and cultural missions. The recommendations of the report, compiled by Tim Jewell at the University of Washington, included the following requirements:

- establish a process for smooth handling of licenses with clearly stated policies and responsibilities
- systematically inform staff and users about general and specific licenses.

Following this report the DLF co-sponsored a workshop with NISO on Standards for Electronic Resource Management and subsequently set up the Electronic Resource Management Initiative (ERMI). ERMI was designed to aid the rapid development of library systems by providing a series of papers to help define requirements and to propose data standards for the management of electronic resources[3]. An important part of ERMI's work on functional requirements and data elements focused on the expression of licences in machine-readable form. At this stage, there was an assumption that libraries would map their licences to an electronic format and this was reflected in the terms of use defined by ERMI and the permissions that included codes such as 'permitted (explicit)', 'permitted (interpreted)', 'prohibited (explicit)' and 'prohibited (interpreted)', which libraries were expected to assign as they mapped their licences.

EDItEUR commissioned an assessment from the Rightscom consultancy to determine the extent to which ERMI might provide the basis for standard XML formats that could originate from publishers or their appointed agents, take into account the requirements of all the stakeholders in the supply chain, provide for the full complexity of rights expression and be flexible enough to support any business model and all media types. The assessment concluded that ERMI was a starting point for such

work but that considerable further development needed to be undertaken in order to meet all of these requirements.

With funding from the Joint Information Systems Committee (JISC) and the Publishers' Licensing Society (PLS), work commenced on ONIX for Licensing Terms, a family of ONIX XML formats developed and maintained by EDItEUR for the communication in XML of licensing terms for all intellectual property resources, and particularly for material published in electronic form[4].

The first manifestation of ONIX for Licensing Terms is ONIX-PL, the ONIX Publications Licence format, intended to support the communication of licensing terms for electronic resources between a publisher and a user institution (e.g. an academic institution or consortium), either directly or through a subscription agent. The purpose is to enable the licence terms to be loaded into an electronic resources management system maintained by the receiving institution. The ONIX-PL expression of a licence could be produced by either licensee or licensor.

In an attempt to gather input and feedback from the US library and system vendor community, a joint NISO/DLF/EDItEUR/PLS License Expression Working Group was set up with members from all stakeholder sectors including publishers, hosts, agents, libraries and systems vendors[5]. This is a very large group with 60 members that has met infrequently by teleconference. Its charge is "to develop a single standard for the exchange of licence information between publishers, intermediaries and libraries." The working group is briefed "to monitor and make recommendations regarding the further development of standards relating to electronic resources and licence expression, including, but not limited to, the ERMI and EDItEUR work and to engage actively in the development of the ONIX-PL licence messaging specification."

The ONIX-PL format intends to express the full richness and complexity of usage terms found in equivalent paper licences. Those parts of the written licence that may be actionable in an electronic resource management system are delivered in a fully machine-interpretable form. ONIX-PL also has the capability of quoting, in a controlled way, those parts of the licence that are not actionable, so that the subscribing institution can create a 'knowledge base' of its licences that can be searched consistently.

Publishers, or third parties acting on their behalf, will have to produce ONIX-PL expressions of their licences. In addition to the publishers' interest in helping libraries and search engines comply with the terms of their licences, there are considerable potential management benefits to publishers in having their licences in a structured electronic form, which enables them to more easily reference individual licences and, if they wish, automate their own licence management systems.

To facilitate the mapping of licences to ONIX-PL, JISC and PLS provided further funding to EDItEUR for the development of a prototype ONIX-PL Editing tool, known as OPLE. This editing tool will enable users to choose from, and where necessary to extend, a menu of clauses and terms, to create a machine-readable ONIX-PL licence without needing to engage with the format at the level of XML.

JISC Collections and ONIX-PL

In early 2007, JISC Collections funded ONIX-PL mappings of their own model licences[6] and they are currently using an early version of the OPLE tools to map 80 of their journal, e-book and dataset licences to ONIX-PL and make them available to UK libraries.

In May 2007, JISC Collections issued a tender for an ERM system specifying as a core aim that "the ERM should support the ONIX Publications Licence format and that licence expressions in the ONIX-PL format can be ingested into the ERM"[7]. It is the aim of JISC Collections for institutions to be able to import ONIX-PL versions of JISC Collections licences into their own ERMs or, if they do not have an ERM, to be able to access the JISC Collections ERM and view the licence terms there. In this way an institution would have access to the 'definitive' interpretation of the licence and could avoid not only the time of undertaking mappings themselves but could also be sure that the information presented to their users is correct and complete.

Challenges

What are the issues that have been encountered in this work? If libraries and their users are to benefit from the machine-readable expression of licences, they must clearly have some way of loading the

ONIX-PL licence expressions into their library management systems and displaying the actionable terms. Although ERMI and most of the major library systems vendors have agreed that the ONIX-PL format is the way forward, the major providers of electronic resource management systems have already implemented the original ERMI terms and at the present time are in no hurry to update their systems to deliver the precision and comprehensiveness provided by ONIX-PL. As a temporary measure, EDItEUR has produced a mapping of ONIX-PL to ERMI (although there are many usage terms in ONIX-PL that cannot currently be expressed in ERMI). This is a rather unsatisfactory way of sharing licence terms electronically, as important information from the licence will not be communicated.

For its part, JISC Collections will have to work with its ERM provider to develop the system to a point where it is able to import and export the ONIX-PL licence expressions in the manner intended. As this article was being written, discussions were ongoing with potential providers on this issue.

When working with new standards and technologies, one learns as one progresses. Members of JISC Collections are using an early version of the OPLE mapping tool to create licence expressions and are therefore using a tool that is still in development itself. The differences between the early version of OPLE and a fully functioning version are great, requiring a level of engagement and reflection beyond that which one might usually expect. However, OPLE has now been developed to the stage where it is possible for the mapping of licences to begin in earnest. JISC Collections will prioritize the mapping of licences to begin with agreements that have the largest number of subscribers and make these licences available as they are completed.

JISC Collections and publishers want the electronic expression of licences that they have negotiated to express the usage terms in their full detail, which is possible in ONIX-PL but not using the existing ERMI terms. Unless an ERM system can implement the full ONIX-PL format, or at least deal with a set of usage terms that would have to be extended well beyond the current ERMI terms, valuable information will be lost. This means that most of the more hard-negotiated contentious terms will not be ingested and displayed to the librarian or user by an ERM system that has not fully implemented ONIX-PL, since the ERMI terms tend to be restricted to the more common usages that are nearly always granted by publishers.

Licensing terms and technology have both moved on since the DLF ERMI report was published in 2004 and it is hoped that potential purchasers of ERM systems will, like JISC themselves, specify that any ERM system that they purchase should be able to ingest and process a full ONIX-PL licence expression.

The future

Once JISC Collections has completed mapping its licences in the ONIX-PL format, they will be available via the JISC Collections ERM and also to JISC's Licence Registry Project, known as RELI. The aim of RELI is to "design, implement and test a pilot Licence Registry to read, and subsequently display to librarians, end-users and other interested parties, the key features of a range of licences. There will be some emphasis on who the authorized users are, and what those authorized users can do. The products whose licences will be evaluated will include scholarly journals, e-books, learning objects, e-theses, and the media covered will include text, still images, moving images and sound recordings."[8]

It is intended that RELI be informed by ONIX-PL, and the RELI project team is working with both JISC Collections and EDItEUR. Inclusion in RELI will further facilitate the communication of licence terms to the end-user and allow institutions to gain the maximum value from the resources they license.

Online access to academic materials has produced substantial benefits for institutions and their users by allowing instant access to a breadth and depth of materials, supporting research that would be all but impossible in analogue formats or simply creating new opportunities for learners to use these materials. By helping institutions communicate licence terms and conditions to their users, we can make sure that such benefits and opportunities are not lost.

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