## **Electronic Communication of Licensing Terms**

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As the number of the digital resources in library collections continues to grow, libraries are having difficulty in complying with the widely differing license terms applied to those resources by their creators and publishers.

Libraries and consortia put a great deal of time and effort, not to mention legal fees, into negotiating licences that are then filed away, often remotely from the library, making it practically impossible for a librarian or user to know precisely what usage terms have been agreed upon for any particular electronic resource.

The ability to receive these terms into a library's electronic resource management system in a standard machine readable format, link them to the appropriate digital resources and communicate them to users has become an increasingly urgent requirement.

Although this need was first identified in the scholarly journals sector, a similar requirement has recently been articulated for the communication of usage terms throughout the discovery and supply chain for both scholarly and trade e-publications.

EDItEUR, the international body for book and serials e-commerce standards, has been 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.

As long ago as 1998 EDItEUR set up a joint Rights Metadata Working Party with the UK standards body Book Industry Communication (BIC) and the US National Information Standards Organization (NISO) "to collaborate with other bodies to help define an international standard for rights metadata elements."

Early in 2000, the Digital Library Federation (DLF), a consortium of academic and research libraries, launched a survey to identify the major challenges

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confronting research libraries that use information technologies to fulfill their curatorial, scholarly, and cultural missions<sup>2</sup>. The recommendations of the report, compiled by Tim Jewell at the University of Washington, included the following requirements:

- Establish 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 with the National Information Standards Organization (NISO) a workshop on Standards for Electronic Resource Management and subsequently set up the Electronic Resource Management Initiative (ERMI), to aid the rapid development of library systems by providing a series of papers to help both define requirements and propose data standards for the management of electronic resources<sup>3</sup>. An important part of ERMI's work on functional requirements and data elements focused on the expression of licenses in machine readable form. At this stage, there was an assumption that libraries would themselves map their licenses to an electronic format.

EDItEUR commissioned an assessment of the ERMI work from the Rightscom consultancy to assess the extent to which it might provide a 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 paper concluded that the ERMI work was a good starting point for such work but would require considerable further development in order to meet all these requirements.

With funding from the Joint Information Systems Committee (JISC) of the Higher Education Funding Council for England 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 of

<sup>&</sup>lt;sup>2</sup> Timothy Jewell, "Selection and Presentation of Commercially Available Electronic Resources: Issues and Practices" (Washington, D.C., Digital Library Federation, 2001): http://www.clir.org/pubs/reports/pub99/pub99.pdf (accessed November 30, 2007).

<sup>&</sup>lt;sup>3</sup> Timothy Jewell et al., *Electronic Resource Management*: *Report of the DLF ERM Initiative* (Washington, D.C.: Digital Library Federation, 2004): <a href="http://www.diglib.org/pubs/dlf102">http://www.diglib.org/pubs/dlf102</a> (accessed November 30, 2007).

licensing terms for all intellectual property resources, and particularly for material published in electronic form<sup>4</sup>.

The aim of this initial project was to produce a prototype XML message for communicating in a computable form the terms of a license agreement for the use, by libraries, of a publisher's digital works. The main use case was the licensing of electronic textual resources, but the structure of the message was to be flexible enough to be extensible to any other type of digital media and license in the future by adding to its semantics, but not significantly changing its structure. The message therefore needed to be generic in structure but successfully demonstrate an initial, specialised application.

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

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<sup>5</sup>. This is a very large group with sixty members that has met infrequently by teleconference. Its role is 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 license messaging specification.

Inevitably, the ONIX-PL format is complex, since it sets out to express the full richness and complexity of usage terms found in equivalent paper licenses. Those parts of the written license 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

<sup>&</sup>lt;sup>4</sup> See "ONIX for Licensing Terms," <a href="http://www.editeur.org/onix\_licensing.html">http://www.editeur.org/onix\_licensing.html</a> (accessed November 30, 2007).

<sup>&</sup>lt;sup>5</sup> NISO License Expression Working Group, <a href="http://www.niso.org/committees/License">http://www.niso.org/committees/License</a> Expression/LicenseEx comm.html (accessed November 30, 2007).

license that are not actionable, so that the subscribing institution can create a "knowledge base" of its licenses that can be searched consistently.

In addition to publishers' self-evident interest in helping libraries and search engines comply with the terms of their licences, there are also considerable potential management benefits to publishers in having their licences in electronic form, enabling them to more easily reference individual licences and, if they wish, automate their own license management systems

To facilitate the mapping of licenses 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 extend, a menu of clauses and terms, and create a machine-readable ONIX-PL licence without needing to engage with the format at the level of XML.

JISC, who negotiate national site licenses with publishers on behalf of UK further and higher educational institutions, also funded ONIX-PL mappings of their own model licenses<sup>6</sup> and are using a pilot version of the OPLE tools to map 80 of their journal, e-book and dataset licenses to ONIX-PL and make them available to UK libraries.

If libraries and their users are to benefit from the machine readable expression of licenses, they must clearly have some way of ingesting the XML formats and processing 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 ahead, they have requested that a simplified and flattened "ERMI dialect" of the format be provided to allow them to ingest licenses without making radical changes to systems that have already implemented, to varying degrees and in different ways, the original ERMI terms. Herein lies a problem that is the subject of considerable debate. Publishers and, indeed, JISC, insist that the electronic expression of licenses that they have negotiated should 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 ERMI terms, valuable information will be lost. This means that most of the more contentious terms will not be ingested and displayed to the librarian or user by an ERM system that has not fully implemented ONIX-PL, as the ERMI

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<sup>&</sup>lt;sup>6</sup> See "ONIX-PL Mappings of JISC Model Licenses," <a href="http://www.editeur.org//ONIX-PL JISC/mappings.html">http://www.editeur.org//ONIX-PL JISC/mappings.html</a> (accessed November 30, 2007).

terms tend to be restricted to the more common usages, usually granted by publishers.

There seems to be a mismatch currently between the views of US librarians, who reportedly do not require usage terms to be expressed in full, and UK and other European librarians who reportedly wish to have all the usage terms that have been agreed in the paper license expressed in its electronic counterpart. We at EDItEUR believe that this may be due to the limited benefits of current systems that display only a subset of licensed usages in sometimes unfriendly user interfaces, in some cases not even linked to the resource in question. Both licensing terms and technology have moved on since the DLF ERMI report was published in August 2004 and it should soon be possible to present a user-friendly display of full usage rights and prohibitions one click away from an electronic resource.