KBART — Making Content Discoverable Through Collaboration

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In the past decade, the proliferation of scholarly information in the online environment has led to a much greater level of access to published research anytime anywhere and has helped institutions to develop strong electronic collections which support today's users. However, the availability of content on the Web also has its problems. The entire supply chain involved in delivering access to content has to meet the challenges of ensuring that this content is discoverable in an age where internet search engines dominate.

Library technology has a big role to play in managing and providing seamless authenticated access to this content. Tools such as link resolvers; federated search engines, and Web-scale resource discovery tools promise the best of both worlds — easier and more successful navigation and discovery combined with seamless access to licensed content available as part of institutional affiliation — performing the role of an internet search engine without the deadends associated with unlicensed access.

Link resolver technology based on the OpenURL[1] standard facilitates mediated access to licensed content offered within institutions. The take-up of this technology within libraries has been huge. However, OpenURL technology is only effective if the knowledge base which it queries is accurate, comprehensive, and up-to-date.

So what is a knowledge base? Well, it is a large repository of metadata describing publisher content including bibliographic and holdings / coverage information which essentially tells a user what they have access to via their institutional holdings. The knowledge base is used by the link resolver based on the incoming OpenURL to determine what is available to the user sending the request. It can then provide the user coming from a source (such as a citation in an abstracting and indexing database) with a link to their "appropriate copy."

In an environment where the same content can be available from the publisher platform; hosting service; aggregator database, or subscription agent gateway, to name a few examples; it is more important than ever that users get automatically directed to the content that is accessible to them. This reduces the problem dead links and requests for payment to access articles which the institution has actually already paid for. A knowledge base can have hundreds of different platforms listed with different content packages

or consortial entitlements, and within those packages; tens of thousands of individual links can be active. It also increasingly contains metadata on free or open access content and other formats such as eBooks and conference proceedings.

Such large knowledge bases require an immense amount of time and effort to maintain and keep accurate. This involves time spent by the link resolver vendor in creating packages and associated linking syntax for their library customers but also by the libraries themselves in localizing the knowledge base so that it is appropriate for their own institution's entitlements. As such, there is much duplication of effort across libraries and by different link resolver vendors in making the metadata available. Work can also be duplicated by the content provider in satisfying differing requirements of different link resolver vendors and library customers.

This is where KBART comes in. The Knowledge Bases and Related Tools Project was conceived out of a research report commissioned by **United Kingdom Serials Group (UKSG)** in 2007 and carried out by **James Culling** of **Scholarly Information Strategies** entitled "Link Resolvers and the Serials Supply Chain."[2] One of the recommendations in this report stated that a "code of practice" be implemented to guide the supply chain in a standard way of providing metadata that could be used by all stakeholders to drive down the costs associated with this activity but, more importantly, to allow users to more successfully discover scholarly content. This code of practice should describe the methods and frequency of metadata supply but also the key data elements that are required in order to record access accurately. In 2008 the KBART Project began. The collaboration between **National Information Standards Organization (NISO)** and **UKSG** ensures that we deliver a truly global solution to the problem of supplying holdings metadata delivered in **NISO** Recommended Practice form. Phase I was chaired by **Peter McCracken** of **Serials Solutions** for **NISO** and **Charlie Rapple** of **TBI Communications** for **UKSG** and included members from the entire supply chain and was truly international in focus. The Phase I recommendations were released in January 2010[3] and represent a simple set of guidelines on format, frequency of transfer, and mandatory elements with

guidance on their use. Phase I delivers a set of basic metadata recommendations which covers elements such as identifier; title; coverage start and end ranges; embargo information; title URL; and coverage depth (e.g., full text). It can be used to deliver metadata for a complete A-Z list of holdings provided by a publisher or for packages of content. The aim is to allow libraries the reassurance of activating at package level without having to maintain links title-by-title. This in turn ensures that links are activated more quickly and mediated access to content is more effective.

Phase II of KBART aims to refine these recommendations by focusing on more specific "problem areas." Such areas include describing consortial entitlements; providing guidance on supplying open access metadata, and refining data elements specific to eBooks and conference proceedings. Phase II started with two new co-chairs; **Sarah Pearson** from **University of Birmingham** and **Andreas Biedenbach** from **Springer**. This carries on the tradition of collaboration between different parts of the supply chain and is again reflected by the membership which includes representatives from publishing; intermediary; link resolver, and library communities. Our first deliverable in Phase II was to implement an endorsement framework for KBART to enable content providers and link resolver vendors to check their procedures for supplying metadata and promote their compliance with KBART to the supply chain. The KBART Information Hub[4] now contains a number of resources to assist organizations in taking up the KBART recommendations. This includes an endorsement checklist and a registry of metadata contacts where organizations can list the appropriate contact for referring metadata queries.[5]

The following articles detail the issues faced by each stakeholder group and key benefits in take-up of KBART Recommendations.

Endnotes
1. OpenURL Standard *www.niso.org/standards/z39-88-2004*.
2. Link Resolvers and the Serials Supply Chain: Final Report for **UKSG**; *http://www.uksg.org/projects/linkfinal*.
3. KBART Recommended Practice *http://www.niso.org/publications/rp/RP-2010-09.pdf*.
4. KBART Information Hub *http://www.uksg.org/kbart/hub*.
5. Contacts Registry *http://sites.google.com/site/kbartregistry/*.