Against the Grain

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ATG Interviews Ted Fons and Laurie Davidson

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ATG Interviews Ted Fons and Laurie Davidson

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Topic: WebBridge and the Virtual Approval Plan

ATG: Let’s start with an overview of OpenURL and the possibilities it presents to libraries, users, and vendors.

TF & LD: OpenURL provides a standard method of transmitting metadata from an origin or “source” to a link resolver or resolution server — something that can parse the OpenURL (look at the different components of the metadata) and then redirect it to a destination or “target.” The clearest example is when the link resolver takes the user from a citation to wherever that full-text might reside — be it a library catalog, a full-text database, or an electronic journal publisher.

The second piece of this transaction — where the OpenURL does not necessarily apply, is the “link to” syntax that governs how reach the target destination. There’s no standard way in which that “link to” syntax works, and sometimes, depending on the vendor, it can be difficult to figure that syntax out.

So, OpenURL as an emerging NISO standard applies to the beginning or “link from” portion of the transaction. It’s starting at the origin or source, and passing that metadata to a standard format to a resolution server. Everything that happens after that falls outside of the standard, and that’s where you get into a lot of questions about how to link to the destination or target.

ATG: In other words, do you use static linking — by keeping a database of all these article-level URLs somewhere so that every article has a static link? Do you rely on predictable linking, where the format is standard and you just plug in the variables that you need to pass a search through? Or do you write complex algorithms to pass many different searches through?

And you have this proliferation of vendor systems and authentication protocols — how do you get the user to the right “layer” of the target resource?

TF & LD: Right, authentication systems are a huge deal, and so in a lot of cases, you’ll see that the “link to” syntax provides just top-level linking, where you just get to a start page. Sometimes you can get to journal-level linking, sometimes you can get to issue-level linking, and then if you’re really lucky, you can get to the direct object — article-level or record-level linking. The task gets harder, the deeper you want to go.

ATG: In the SFX model, the “link to” syntaxes are within the library’s control, based on whatever they work out with the owner of the target resource. Is that similar to how WebBridge works?

TF & LD: It is. We may have different terminologies. Innovative uses the term “predictable URL” which means that we need a known format of URL into which we can plug one or more variables. Now that could be a simple format or it could be a 200-line URL — it depends on what the vendor of the target resource requires. In essence, we store an algorithm for how to link to the target, in the form of a predictable URL. Then the variables specific to the item are plugged in and it passes to the target.

Sometimes those predictable URLs are very easy to determine — you do a search on Google or Alta Vista and you can find it in two seconds. And sometimes, especially for licensed databases, vendors use Session IDs and you need to figure out how to predict those.

Some vendors have shared the search APIs with us, and some have actually changed their URL structures to be predictable. We worked with Bowker, for instance, so they would return the full record display with a single URL. They were happy to do that, to develop sort of an “innovative URL” that would go directly from Millennium to the Millenium link to the full record display, rather than through some intermediate screens.

I spoke with University of Chicago and Harrassowitz about their SFX implementation, in which multiple links are available; i.e., a user can choose which record display (brief bib record with order screen, full bib record, etc.) she sees.

WebBridge, too, can handle a number of different URLs to the same resource. Because the library is in control of their set of links, they could have any number of those links, and their destination within the vendor site would depend on which link they chose.

TF & LD: The staff side actually came first. The initial concept of doing record-to-record linking from within a staff module to any number of different sources came about maybe a year and a half ago, with Release 2001.

ATG: Is WebBridge something that Innovative Interfaces created, or is it licensed from a third party?

TF & LD: No, all of the WebBridge software is our own, written in-house — every line of it!

ATG: How many WebBridge implementations are there currently?

TF & LD: On the staff side, we offer it to all of our libraries in a limited fashion. What we mean by “in a limited fashion” is that we have two levels of this sort of linking — basic linking, which gives libraries the ability to pass metadata to different sources, say a book jacket provider and a book vendor — and that level is standard — everyone gets it automatically with their Millennium systems. There are currently 558 libraries with access to this basic linking in their Acquisitions client.

If, on top of that, you purchase WebBridge, you get linking from many sources: the resolution server which can accept an OpenURL from external origin, linking from the Web OPAC, and linking from the staff module. The administrator can define any number of links, and can set up fairly complex rules as to when these links are offered. You can specify that “I want this link to be offered from Millennium Acquisitions but not Cataloging” or specify groups of users within each staff module — a great deal more customization than we offer,

The full WebBridge option is still in beta, but will come to general release with Millennium 2002, Phase 2, which is slated for October. We currently have nine sites that are beta-testing.

ATG: How did WebBridge originate? Is this something you developed in response to customer demand?

TF & LD: The original demand was from libraries using our Selection List technology. For years, they’ve been asking us to develop some kind of linking tool to connect to book reviews — that was the original request. When we moved into our Web-based Acquisitions client, we saw the opportunity to link to Web-based content. Since then, interest has been very high.

It’s absolutely perfect for Selection List processing, for example. What I see very frequently is that people are linking to free sources, like Amazon, when they’re using the limited version of WebBridge.

ATG: With the idea that they’ll find a jacket image or annotated description?

TF & LD: Yeah, they get book jackets, tables of contents, reviews, a current price.

ATG: Who is responsible for working out the “link to” syntaxes with the target resource? The library? Innovative?

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TF & LD: Both. We have a lot of experience in developing the software, so we’ve determined a number of the linking syntaxes and we’ve published some documentation for our libraries on the basic ones that we know about. We know our libraries also go out and discover new sources, and puzzle out the URLs and they sometimes share them with us.

ATG: And the responsibilities of the target vendor or resource? To articulate or document whatever syntax or URL structure is necessary to get to whatever screen the library wants to view?

TF & LD: Sometimes they already have a known format that can just be used. It also depends on how old the target resource’s software is. Newer software is better positioned to respond to this type of need than is old legacy software. So success is quite vendor-dependent.

ATG: Let’s discuss this now in relation to the “virtual approval plan” concept. The fact that WebBridge can use the Acquisitions module as a source makes it especially useful for this purpose. If I understand correctly, a library could load its approval plan receipts or its notification slips for a given week into Millennium in MARC format, and from that MARC display could link to external sources with additional information about that specific title.

TF & LD: Yes, that’s exactly right. Depending on what targets they’ve set up in their WebBridge tables, we create the link for those resources. It’s really one display. You see the MARC record, and up above, almost like bookmarks, is a list of the potential links for that title.

ATG: So, if a library had licensed fiction summaries from Syndetics, or reviews from Publishers Weekly, or wanted selectors to have access to a fuller record in Amazon or a vendor system, the selector could link directly to any of those sources for additional information, but still remain working in the Acquisitions client?

TF & LD: Yes. Or Baker & Taylor’s inventory list, or to an eBook version of the content in netLibrary. Depending on which link you click, the browser is activated and that page is displayed.

ATG: And you preserve your context? When you’re finished, you end up back in the MARC record in the Acquisitions module?

TF & LD: Right. And in our system, we have links to other acquisitions information. So, you can access your fund balances, for example.

ATG: And then you can transact on the item—turn the selection into an order?

TF & LD: Yes, if you’re ready and authorized, you can then queue a purchase order and send it off. Also, remember that WebBridge can link to other catalogs as well—as long as they have predictable URLs. In a consortium, or any group of peer institutions, you can set up those libraries as targets, and check their holdings—in support of cooperative collection development.

ATG: Of course, that depends on whether the OPAC module of the target ILS supports predictable URLs. Obviously, another Innovative system would do so, but what if the target OPAC is (perish the thought) a system other than Innovative?

TF & LD: We can link to some other systems, though it may depend on which version of their software the library uses. It’s dependent on the syntax supported by the target OPAC. Its usefulness depends on how deep the top links can go. We can always link to the top level—that is, to the search submission screen of the other system.

ATG: But nobody really wants to go there.

TF & LD: Right, then you have to re-key your search. So, with a full-text target, the next levels are “can you get to a search page” or a journal level page (basically the equivalent of doing an ISSN search) or can you actually get to the specific article whose citation you’re linking from? Regardless of the target, there’s a lot of configuring that’s done to get in as deep as possible, but there’s really no magic. All link resolvers have the same “stuff” to work with – the capabilities of the target resource.

ATG: It certainly seemed that way when I was talking with Harrassowitz, and U Chicago. It took less than a day of programming on their part to get the “link to” query to get far enough into the database. They mentioned that they’d been working on something similar with you.

TF & LD: It’s actually not similar, it’s exactly the same! In our case, we have the ISBN in the bibliographic record, and want to pass that to Harrassowitz to get back a description of that book. SFX had exactly the same situation. They passed an ISBN from some other source [OCLC or RLIN, as we learned last issue]; they must pass that to OttoEditions to get back a page with information about that book. And the only way to do that today is with a predictable URL, whether you call it that or not.

So it happens that, once Harrassowitz has done that development, we too can take advantage of that predictable URL syntax now. [Because linking to Harrassowitz from the resolution server will be the same, no matter what resolution server is involved.] As soon as that work was done, Harrassowitz sent us the specs, and it actually works very nicely.

ATG: As you mentioned, too, they [Harrassowitz] have done a great job making different types of URLs available, depending on what kind of page you’re looking to get back. Now, in order to return a specific page, like an order screen in OttoEditions, you somehow have to accommodate the user ID/password protocol. How do you go about that?

TF & LD: There are at least three possible approaches:

The least sophisticated is to embed user IDs and passwords right into the predictable URL. So when you enter the model URL in the WebBridge table, you include something like “ID=fons” and “password=whatever” and when that URL is generated from the client to the target page, all necessary elements of the URL are already there. The target Web server will just take the user ID and password from the URL itself.

ATG: But that could mean that each individual user would have to be configured separately?

TF & LD: Yeah, that’s a good point. That model would probably be used most often when a number of people shared the same login information—because the management table is not really at the user level— it’s at the group level. As I said that’s the least sophisticated approach.

The next level uses “cookies” and other PC technology to record a login on the fly. So in this model, there’s no login information in the URL. The user clicks on the link, and the target Web server will return a page saying “you’re not logged in” and then presents a login page. Once the user logs in, some kind of cookie technology is used to record that the user is signed in to the system. Subsequent searches can be done without any login, until the cookie expires. This is pretty common, and seems to work just fine.

Then, the final level is IP authentication, where the Web server is filtering based on IP address—is this person valid? Other authentication schemes can be involved, such as proxy servers. In this model, a selector could be working remotely—off campus, from home—and once s/he logged in, they’d be directed to the record-level screen. So the “link to” syntax is retained—there’s just an intermediate step or screen.

Finally, some target systems impose “session IDs” (where each login or search is assigned a unique identification number) that have a specific expiration time. But often, these vendors can give us a predictable URL, incorporating variable names for the session IDs, so that when a user clicks on it, a new session ID is assigned — so you don’t have to hard code session IDs in your “link to” syntax. And that’s ideal, but it requires that the vendor be willing and able to make those modifications.

Some of the larger target resources, like Ebso and OCLC, have created “link to” syntaxes that bring the user directly to the appropriate record, but don’t actually create a full-blown session or functionality — sort of a dumbed-down link, with fewer privileges, but also with fewer complications related to authentication.

ATG: So the extensibility of WebBridge and similar systems depends on how creative you and/or the target information provider can be with the links you provide on the back end, and how much granularity there is in the type of link—simple record-to-record versus a full-blown session?

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From the Reference Desk

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It might be refreshing news for some, and a shock to many, but print indexes still have a place in academic research. Admittedly, they must be qualitative and selective, focused on a specifically defined topic and well organized. But, if an index measures up to these criteria, it will find a warm reception on library reference shelves. Such is the case with Kelly S. Janousek's *United States Supreme Court Decisions 1778-1996* (2002, 0810839989, $110).

Published by Scarecrow, this book updates and continues the work that Nancy A. Guenther started with her two editions of *United States Court Decisions: An Index to Excerpts, Reprints and Discussions*. Guenther's last edition covered Supreme Court cases through 1980. (According to Amazon, Guenther's second edition is still available from a variety of booksellers, (1983, 0810815788, $24 +). In the most recent edition, Janousek takes us up to 1996 in case coverage, as well as listing recently published works on cases previously covered by Guenther. Her book is arranged chronologically and lists over 4,000 case entries, providing the names of the parties, the date of the decision, all reporter citations for the case, as well as listing the cases that were decided with the main case when that occurs. But the main value of this reference is the selective list of sources that points the reader to reprints and discussions of each case from non-law oriented books and journals. Choosing from standard indexes and book reviews, Janousek references 108 books and 114 journals. Besides the chronological arrangement of entries, there are a number of indexes providing access to specific cases. There is an A-Z Subject Index that lists topics along with the relevant entry numbers, a Cross References Index and a Popular Law Name Index. There is also a Words and Phrase Index that gives entry numbers to cases that have argued the legal meanings of word and phrases.

Kelly S. Janousek's *United States Supreme Court Decisions 1778-1996* is a valuable and useful resource. Like its predecessors, it offers knowledgeable guidance to anyone interested in Supreme Court decisions in an easy to use format. The index selectively recommends resources containing commentary and discussion on each case. Given the incredible amount of information currently available on the Supreme Court, such guidance is a godsend, especially to high school students and undergraduates.

The *Oxford Companion to the Body* (2002, 01952403X, $75) is one of a group of companions recently published by Oxford University Press. Containing over 1,000 alphabetically arranged articles, this volume covers the physical aspects of the body and body systems, as well as discussing disorders that affect the body. Readers will find articles that cover body organs like the heart, lungs and skin as well as functions like respiration, reproduction, and blood circulation. Coverage also includes disorders like cerebral palsy and epilepsy, as well as conditions ranging from heat stroke to hysteria. However, this is not only a biological/medical reference. The unique value of this *Oxford Companion* lies in its coverage of the many diverse issues related to the human body. Topics run the gamut and include fasting, sport, health foods, dance, hygiene, sculpture, funeral practices, hypnosis, sexual orientation and religion. All of these topics are discussed as they relate to the body thus offering a reference that has multiple applications ranging from social to biological and from artistic to medical. The book has been handsomely produced with a number of black and white photos and diagrams, as well as a few color plates. In particular there is a collection of color plates at the end of the book that depict the major body systems. The *Oxford Companion to the Body* is a book that could find a place on either reference or circulating shelves depending on need. Written in a straightforward, accessible style, this book offers a perspective not found in traditional references on the human body that emphasize the physical biology. It has broader applications and should be welcomed by both undergraduates, as well as larger public libraries.

Another Oxford companion of interest to both public and academic libraries is the *Oxford Companion to Music* edited by Alison Latham (2002, 0198662122, $60). Some 8,000 entries fill almost 1,400 pages continued on page 74

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**Fons & Davidson Interview**

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**TF & LD:** Yes, and it will continue to get better. If you look at how many vendors did this even a year and a half ago compared to how many are doing it now or plan to in their next version, it's striking. I really do think this is going to become something far easier to deal with as vendors realize the importance of being able to handle these kinds of link requests. It's just taken off in the past two years.

And then it becomes hard to keep track of it all, when you've got 180 different places you can link to. Eventually it would be nice to get to the point that each of these vendors has a known URL structure or an API with instructions how to pass a search to it — without all this data being kept in local files that need periodic updating.

**ATG:** Though it may be a little tough for some of them, because it means admitting that users don't start in or return to their native interface — there's some loss of control or stickiness.

**TF & LD:** Right, that's an excellent point. It means accepting a different model of how your users get to you.

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