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Digital Delivery of Interlibrary Loan and Democratic Digital Collection Development at Stanford

by **Glen Worthey** (Humanities Digital Information Service, Stanford University Libraries and Academic Information Resources, in Stanford, California)

Summary

Under two successive grants provided by the **California State Library** with **Library Services and Technology Act** funds (FY 1999-2000 and 2000-2001), and then through calendar 2002 under internal funding, the **Stanford University Libraries** created and implemented a pilot project to provide **digital delivery for interlibrary loan (dd-ILL)** of out-of-copyright, monographic materials. The project demonstrated successful solutions to two distinct sets of problems: first, it assisted in and expanded the day-to-day work of our traditional interlibrary services; and second, it contributed to longer-term goals of building digital library collections.

Delivering digital surrogates to remote patrons allayed concerns for the safety and preservation of rare or fragile materials. In this way, **dd-ILL** made possible ILL circulation of previously non-circulating materials, and thus extended the range of materials delivered through ILL (and, incidentally, increased the fill rate of loan requests). By focusing on monograph-length items, the **dd-ILL** program also provided unique selection principles for augmenting our own

digital library collections. Unlike thematic or collection-specific projects, which are chosen by faculty or librarians, materials chosen through **dd-ILL** reflected the needs of broader-based user communities, including users from non-research universities and public libraries. This implies a radically democratic, user-based method of digital collection development, one driven by the community perhaps most likely to benefit from the collection it is helping to create itself. Thus, in addition to expanded ILL service, the digitization of ILL-selected materials has served both as a collection development tool and as the impetus for longer-term digital collecting initiatives.

The **dd-ILL** program had an overwhelmingly positive response both from remote users and from the **Stanford** staff whose materials have been digitally delivered as ILL items; indeed, the **dd-ILL** program jump-started a series of user- and librarian-initiated requests for the digitization of out-of-copyright monographs, and the body of digital work created during three years of **dd-ILL** now forms the core of a **Stanford** digital collection of pre-1923 holdings. Compared with the output of our current

digitization technologies, efforts, and plans, this core (just under a thousand titles) is quite modest; still, it's a proud part of our digital library collections.

dd-ILL and Traditional ILL

dd-ILL significantly expanded current practices in electronic ILL, for example, **Ariel**: first, the scope of digitized materials was extended (and indeed, restricted) to monographs — that is, to items of scope significant enough to merit consideration for inclusion in a permanent digital collection, and with existing descriptive metadata rich enough to facilitate later discovery. Second, it was anticipated that there would be no paper copy produced at the receiving end, as there usually is in the **Ariel** workflow; here, delivery of ILL materials was, at least potentially, entirely digital.¹

dd-ILL was created as an experimental project to offer complete, out-of-copyright works in digital form in response to users' requests. This scan-on-demand service for monographs was apparently the first of its kind in the world (though the **Library of Congress** inaugurated a very similar, though unrelated and less ambitious, digitize-on-demand service almost simultaneously with **Stanford**). The program

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Voice

The third way to look at reference content is in terms of its voice.

Voice is the sum total of how we present the knowledge we've gathered, from the size and number of volumes to the design of pages and navigational tools. Then we get to the words on the page or screen, the content itself. An encyclopedia's voice should not resemble the cacophony of *Iron Chef*. Nor should it resort to the jargon and passive prose that makes some academic language an exclusive tongue that others cannot understand.

But too much editing risks losing an article's personality, passion, and humor. That's why creating an appealing voice for their publications is such a challenge for publishers. Here are some signs of a well-conceived and edited reference work, one whose voice is right: Articles on similar topics are organized similarly, and openings provide elementary facts and immediate context for the topic. You know right away why any given article is in the work and what you will get out of it. Sentences are reasonably short, the language is vivid and active, and there are plenty of facts as well as thoughtful explanation of what they mean and why they might matter.

An essential component of the relationship between the reader and the work is the assumption that we are all striving to understand and grow in knowledge together. Any note of superiority should be scrubbed from a reference work. In fact, I see interactivity as an important need. In the future encyclopedias may well become venues where scholars, inside and outside the academy, will ask and respond to questions and connect with one another.

In 1995, we decided to add sidebars of primary text to articles in the *Encyclopedia of World Sport*, and we've done this ever since. In *World History* we are adding short quotations from figures as varied as **Sophocles** and **Darwin**, **Marie Curie** and **Monty Python**. These kinds of additions are popular because they add something essential to the voice of a work: human stories. They connect abstract knowledge with the concrete realities of human experience.

Conclusion

I'd like to conclude with another strongly held belief: that the publisher has a responsibility to think critically about how closely the work produced matches the original intention, and the description provided to readers. **Samuel Johnson**, creator of the first authoritative English dictionary, said, "There are two things which I am confident I can do very well. One is an introduction to any literary work, stating what it is to contain, and how it should be ex-

ecuted in the most perfect manner; the other is a conclusion, shewing from various causes why the execution has not been equal to what the author promised to himself and to the publick." [sic.]

Conscious of the flaws in our work, we always try to admit where we fell short — for instance, in failing to include that article on light pollution I mentioned above.

But we don't grow our own corn, and farmers have adapted. They grow new varieties that stay sweet in the bin, in the bag, even in the refrigerator. The corn from **Taft Farms** is about as good as it gets, but these new varieties just aren't the same. They are sweet, but they are starchy too, sticky in the mouth instead of tender fresh like old-fashioned varieties. Agriculture is changing, both for good and ill, just like publishing. External pressures and social changes mean that we may be producing the equivalent of the sweet but sticky new corn varieties. Publishers aren't so very different from farmers, really, trying to get the best, most profitable crop they can. We ask the same questions small farmers do: How can we stay in business doing something we love? Are we contributing to sustainable (knowledge) communities? And maybe, when we have a moment to reflect on both past and future, we wonder how to recapture the elusive sweetness of old-time corn on the cob. 🌽

Watch for Part II coming soon. — KC

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was received with enthusiasm throughout the library community, for some obvious reasons: because of their age and fragility, many of the works scanned and delivered through **dd-ILL** would not otherwise have circulated, so use of digital surrogates not only helped to preserve these works from excessive handling — more importantly for non-Stanford users, it created much better opportunities for access to rare and unique content.

The project workflow was fairly simple: any request coming in to regular ILL that met our **dd-ILL** selection criteria (out-of-copyright monograph) was routed to **dd-ILL**, where our staff paged the book, sought permission of the cognizant curator or of Special Collections staff if the book was fragile, then scanned and converted the book to PDF for delivery. Of course, only non-destructive scanning methods were used: the primary tool for this was an overhead (planetary) book scanner. PDF was chosen as the delivery file format² because it is both ubiquitous and neatly-packaged (and thus easily delivered); we employed uncorrected optical character recognition (OCR) to make the PDF both more or less easy to create, and more or less searchable; and we chose the “image plus hidden text” PDF format so that, no matter what the OCR accuracy rate (which was always far too low for plain-text output), the user could see a page image as close as possible to the pa-

per original. When the PDF file was created and basic quality control completed, we moved it to a designated space on our own Web server, then informed the requesting library of a URL where the file could be retrieved. This URL was intended to remain constant, both for the delivery of the ILL request and for eventual integration into the digital library collection. Within a relatively brief period of time after “delivery” to ILL patrons, these same URLs were driven into our catalog (and matched to the catalog record for the print original) in order to facilitate seamless discovery via mainstream tools, and direct access to the digital surrogate.

Although we experienced occasional delays due to staff learning curves and to rough edges in our processes and technologies, we still met our goal of efficient ILL practice with rather striking consistency: throughout the project, the average time from initial request to desktop delivery was five to seven days, well within the norms of traditional interlibrary loan.

dd-ILL and Digital Collection Development

Aside from the creation of an innovative delivery method for handling ILL requests, one of the fundamental principles of **dd-ILL**, was the establishment of a new tool to augment Stanford’s digital library collection: *vox populi*. This collection of scanned books is thus unique in its scope and focus: because the books were all requested through interlibrary loan, we assumed that they are both not widely held in American libraries, and of particular interest to current researchers — otherwise, it is not likely that they would have been requested through ILL in the first place.

Although Stanford now has greatly expanded and automated a book digitization program that supports a large number of projects, each with its own selection principles, the **dd-ILL** project was our first to concentrate on out-of-copyright monographs; indeed, although the out-of-copyright designation was initially chosen simply to avoid rights and intellectual property issues, we later acknowledged its value as a principle of digital collection development, and have undertaken a newer project to digitize general out-of-copyright holdings in the Libraries. The **dd-ILL** corpus is being integrated into this larger collection.

How, then, did the composition of this “democratically selected” digital collection turn out? Just under half the titles are in languages other than English. The vast majority are in the humanities and social sciences, and of these about 35% came from Special Collections. We suspect that the reasons for this are related both to the relative longevity of works in these fields and to the out-of-copyright element of our digitization selection criteria. A different, and unexpectedly important, subset of our **dd-ILL** collection was a direct result of our out-of-copyright selection criteria: a significant number of requests came directly via our **Earth Sciences Library** for unpublished theses, dissertations, and field reports from a science discipline in which older research largely retains its value over time. Although these titles constituted only about 6% of the total, this was about three times more than from all other science and engineering branch libraries combined.

As for the age of this collection, imprint dates of digitized titles ranged from 1574 almost to the present; the vast majority, more than 90% of titles, are pre-1923. (The remaining 10% were selected for digitization based on other “out-of-copyright” principles, such as the public domain nature of government documents, Stanford or Stanford-affiliated intellectual property such as theses and technical reports, and a few non-U.S. publications that are in the public domain in their countries of publication.) About 25% of the total were published between 1900 and 1923; about 50% from 1800 to 1899; just under 10% from 1700-1799; and about 5% from the late 16th and 17th centuries.

Cataloging, Discovery and Access

Ironically, today’s digital library environment is generally still quite limited in true cross-collection searching opportunities. Significant bodies of digital material are still discoverable only within their respective information silos, each with its own search apparatus. For a startlingly large quantity of digital library resources, in order for a patron to find what she wants, she must first know which database, digital collection or e-book service her desired title is in. While the standard online catalog may seem passé in some digital Utopian sense, it still provides far and away the best opportunity for discovery of electronic resources.

Fortunately for our **dd-ILL** collection, as for any collection of digital surrogates of existing print materials, the existing catalog record provides by far the simplest, most complete, and most direct discovery interface for our patrons. For all of these reasons, after **dd-ILL** patrons were notified of their “pickup” URL, we simply batch-loaded these same URLs into the corresponding catalog records, where they can be searched as a collection (using the keyword “**dd-ILL**,” which appears as part of each URL in the record), or — much more likely from a user’s point of view — discovered spontaneously and serendipitously as the result of a standard search. Instead of a user first wanting “something digital” then going “somewhere digital” to find it (obviously not a likely scenario), the **dd-ILL** files are immediately discoverable (and deliverable) to anyone searching a particular author or title (which happens thousands of times a day).

Approximately 23% of the total digitized titles have print originals housed in remote storage; 30% of the total are in (non-circulating) Special Collections and 10% of the total in locked-stack or other non-circulating collections — thus well over half of the titles which are of limited access in print form, even to Stanford users, are now immediately available to them as digital surrogates, directly via the catalog. These 600+ digitized, limited-access titles are, of course, just a tiny drop in the eight-million volume bucket of the Stanford Libraries. But the fact that these titles are to some degree both user-selected and access-restricted makes this drop a rather concentrated one.

Conclusions

Although Stanford’s Digital Delivery of Interlibrary Loan program has been on hiatus since 2003, it has survived in spirit: many of its principles and practices, especially in the realm

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This is a work in progress. Swem Library’s Interlibrary Loan, Collection Development and Acquisitions departments have made a commitment to work together, to improve access, service and our library’s collection. Traditional ILL, while filling the immediate information need, does nothing to improve a library’s collection. A collaborative project such as this, however small to start out with, is a move in the right direction.

Endnotes

1. Lynda Fuller Clendinning, “Purchase Express for any user request,” *College & Research Libraries News* 62, no.1 (January 2001): 16-17.
2. Richard Hulsey, “Purchase on demand: a better custom service model,” *Library Journal* 128, no.10 (June 1, 2003): 77.
3. Jennifer Perdue and James A. Van Fleet, “Borrow or buy: cost-effective delivery of monographs,” *Journal of Interlibrary Loan, Document Delivery & Information Supply* 9, no.4 (1999): 19-28.
4. Suzanne M. Ward, “Books on demand: just-in-time acquisitions,” *Acquisitions Librarian* 27 (2002): 95-107.
5. F.K. Rottmann, “To buy or to borrow: studies of the impact of interlibrary loan on collection development in the academic library,” *Journal of Interlibrary Loan & Information Supply* 1, no.3 (1991): 17-27.

ILL=Illuminating Lessons ... from page 50

made for preservation reasons. Along with preservation, the point of placing works in the repository will generally be to make them available to our patrons. Without physical transfer and the first sale doctrine, making a work available via a network (including the Internet) can be construed as distribution—one of the rights of the copyright holder. Clearly, acquisition for a digital repository will involve seeking permissions and perhaps the payment of royalties. My department spent several years in the latter half of the 1990's working as partners with our vendors to create an outsourced acquisitions-to-ac-

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of digital collection development, have become part of our continuing efforts. We have acquired and developed more automated scanning technologies that have dramatically increased the volume of digital surrogates we create from our print collections. But among the first projects undertaken in our high-volume scanning operation was a collection of "top-circulating" titles from our print collection in the public domain—a democratically selected collection that is being digitized for open access, just as the **dd-ILL** collection was. The principle delivery format, at least for the time being, is still the page-image-plus-hidden-text flavor of PDF. And although we have moved somewhat away from simple direct access on a Web server to more sophisticated delivery environments, even here we continue to emphasize the importing of links to the digital surrogate from the print title's catalog record as the primary discovery tool.

Stanford's **dd-ILL** program was a brief but important effort to combine innovative ILL services with innovative collection development principles—particularly for digital collection development. We are proud of the popularity of the service, of the populism of the collection it created, and of its lasting impact on our expanding digital collection efforts.

Endnotes

1. Contrary to our expectations, we discovered, both through occasional problem reports and via an end-of-project questionnaire, that a significant portion of our patrons did, in fact, print out the books we had scanned.
2. The choice of file format has important long-term implications for the digital collection development aspect of this project: PDF has, as a proprietary and evolving file specification, had known longevity and obsolescence issues. Still, certainly over the course of the **dd-ILL** project and since its end, the files we've created have remained readable in current versions of Adobe Acrobat. We hope that Adobe continues in its course of backward compatibility. But for preservation purposes, we scanned at minimal best-practices resolutions, and archived all original tiff files. We believe that the creation and retention of both file formats has allowed us to serve both short- and long-term access needs.

cess flow for monographs.⁶ In the case of permissions, ILL's lesson to acquisitions is that existing services such as **Ingenta** and the **CCC** are in place and have permissions and royalties flows that may be adapted and applied to the work of clearing copyright for works that will be placed in the repository.

Lesson 3—When blazing a trail, it can be important to leave one, as well

Acquisitions departments are familiar with the responsibility of maintaining an audit trail in which expenditures can be tracked back to receipt and an order by an authorized person. In general, integrated library systems (ILS's) and campus financial systems are configured so that necessary audit elements are created as part of routine work. **CONTU** guidelines create a need for a detailed audit trail for ILL, one that goes well beyond bibliographic and expenditure information, in order to monitor the "suggestion of five." At a minimum, **Nixon** suggests that:

...to comply with the guidelines, a library would have to keep track of the date of a request, the requesting patron's name and institutional affiliation, and distinguishing information on the article and serial or monograph being copied from."⁷

Acquisition of copyrighted material for a digital repository will require a number of data elements not currently included in ILS records. These include: determination of copyright status, copyright holder(s), attempts to obtain permission, and permissions obtained. Permissions obtained may be particularly complex, for example a library may have permission to digitize copyrighted information in a manuscript collection but to distribute it only after time has passed or to certain people. Ideally, many of these data would be recorded in semantic fields so that determinations about access by patrons could be made automatically, rather than looked up and determined by human intervention. Existing ILL software, along with standards initiatives such as the **Digital Library Federation's Electronic Resource Management Initiative**,⁸ can provide a point of departure for libraries and software vendors in this effort.

Signposts by the roadside, or don't reinvent the wheel

The creation of digital repositories will require acquisitions departments to develop new processes to meet institutional needs. Acquisitions, along with ILL, is a high-production environment, and acquisitions managers and staff are skilled in developing and implementing work flows which ensure consistent handling and outcomes. With the need to add digital works to library collections, acquisitions departments are challenged to include a new attention to intellectual property and particularly copyright issues. This attention to copyright as part of a high-production, service-oriented flow, has been built into ILL departments, making them a useful case study for acquisitions managers to consider as they prepare for increased engagement in digital acquisitions.

Endnotes

1. *Stanford University Libraries Redesign Report* at <http://www.sul.stanford.edu/depts/ts/about/redesign/report/index.html>. Accessed January 18, 2004.
2. *Copyright Tutorial* at <http://www.lib.ncsu.edu/cc/tutorial/basics2a.html>. Accessed January 18, 2004.
3. Creative Commons licenses allow the creator of a work to permit others to copy and distribute his or her work on certain conditions. Sample licenses are available at <http://creativecommons.org/licenses/>. Accessed January 18, 2004.
4. *US Code Collection*, Chapter 17, Title 1 at <http://www4.law.cornell.edu/uscode/17/108.html>. Accessed January 18, 2004.
5. Nixon, Donna. "Copyright and Interlibrary Loan Rights." *Journal of Interlibrary Loan, Document Delivery & Information Supply*. Vol. 13(3) 2003.
6. "Schematic Redesign for Monographs" in *Stanford University Libraries Redesign Report* (<http://www.sul.stanford.edu/depts/ts/about/redesign/report/sect7.html>). Accessed January 18, 2004.
7. Nixon, 64.
8. *DLF Electronic Resource Management Initiative* at <http://www.diglib.org/standards/dlferm02.htm>. Accessed January 18, 2004.

Acquisitions and Interlibrary Loan Together: Good Marriage or Will George W. Bush Object?

by Joe Badics (Acquisitions Librarian at Eastern Michigan University)

Eastern Michigan University is a comprehensive institution with slightly less than 20,000 FTE students. It plans to soon offer its third doctorate program. The library has over 750,000 volumes, with over 3000 paper periodical subscriptions and access to thousands of others electronically. We purchase over 16,000 monographs each year. During 2003 we initiated approximately 2100 borrowing requests while receiving almost 8500 lending requests.

The staff members of the Circulation Depart-

ment at the library performed all interlibrary loan duties for many years. In September 2000 the borrowing function was transferred to the Acquisitions Department to ease the load on the Circulation staff. We decided to implement the **ILLiad** software in January 2003, and the lending component was transferred to the Acquisitions Department since we were successfully handling the borrowing end, and splitting a commonly traditional library department was causing some confusion.

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