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3

BUSINESS CHALLENGES TO LIBRARY PRACTICES

It's disintermediation, and the library is the odd man out.

—Mick O'Leary

THE COMMERCIALIZATION OF LIBRARY SERVICES

It sounds like a made-up word, but "disintermediation" is the new information buzzword that supposedly threatens library services. The commercialization of library services is as old as information broker services, which predate the Web by several decades. Easy access to the Web, however, has made libraries nervous at the same rate that it has provided some Internet start-ups with millions in venture capital. Had libraries been as quick to patent the interlibrary loan business model as Amazon.com was in patenting one-click shopping, the millions in royalties might have made libraries rich enough to buy out the online competition. This chapter will take a look at several moderately successful ventures that have tried to replace, augment, or disintermediate library services. Finally, it will examine how several digital library services are already adopting some of the strategies and technology brought to the table by upstart start-ups. Libraries are indeed positioned to "re-intermediate" themselves into a market that they still dominate, and which they will ultimately control in the meantime. Information is hot, and libraries should position themselves as close to the flame as possible without getting burned.

Library-in-a-Box: Questia

Libraries set the stage with the online catalog and various periodical indexes, the first in a series of electronically available resources that would whet users' appetites for instant gratification. Full-text resources would soon follow, including full electronic journals, and eventually the electronic book. Digitization projects would add thousands of resources, and even digitally born, or "electronic only," resources would appear on the scene in several libraries. The problem, like that besetting the original nonintegrated modular library systems, is that all of these resources come in parts, with the library responsible for integrating them into a cohesive suite of digital services. Some libraries have tried to centralize control through use of the online catalog, but the changing nature of online resources—URLs, coverage dates, changing suppliers, and other elements—makes this sort of data too difficult to easily control in traditional online catalogs. It was only a matter of time before some corporate interest created the "library-in-a-box" concept that would integrate varied content under one umbrella, even a small umbrella.

If not first, then certainly the best known, Questia attempts to be the solution that every undergraduate with even the mildest case of bibliophobia will embrace. (See appendix A for a description of this and other companies discussed in this book.) Questia wants to make itself into the ultimate onestop shopping point for everyone seeking a least common denominator solution to their information needs. What Questia and its ilk lack in content, they more than make up for in value-added interfaces and marketing strategies. One of the first to market itself directly to students (and their parents), Questia, who will not disclose the number of subscribers it has, now boasts access to over 70,000 book and journal articles in the humanities and social sciences, and a staff of 25 with one professional librarian (these last two numbers are in sharp decline compared to their start-up figures, which could mark the beginning of the end for Questia). The threat comes in destabilizing the status quo relationship that libraries and book vendors have enjoyed for over a century. By making deals directly with publishers, Questia removes the library as intermediary for the delivery of content to the end-user.

This new model even supplants the highly praised library model presented by netLibrary, in which libraries purchase or lease titles, and circulation is based on a single-user access to any title purchased, which is easily equitable with printed book circulation. While it is difficult for most librarians to discuss Questia without editorializing on philosophical (or hurt feelings') grounds, this section will attempt, somewhat objectively, to deconstruct Questia and other services like it, current and future.

Philosophy

After drawing some initial backlash from libraries, including some criticism of librarians who had joined its ranks as staff or advisors (a new dark side . . . sound familiar?), Questia has attempted to reposition itself as an online complement to libraries:

The Questia service is an online library focusing on the humanities and social sciences. However, our service is not designed to be a substitute for a traditional library but rather is designed to make an extensive collection of titles and research tools available online to students 24 hours a day, 7 days a week. We believe that physical libraries, and their librarians, will continue to play a key role in the future of research and education.¹

This sentiment is less clear, however, in Questia's marketing campaign, which paints the physical library in a less flattering light. (See figure 3-1.) Questia attempts to be hip by speaking the language of the average undergraduate, and by making pleas that appeal to those with habits like procrastination, laziness, and the need for instant gratification.

OTHER INTERNET SOURCES	QUESTIA'S ONLINE LIBRARY		
Lots of junk to filter through	Scholarly books and journal articles selected by librarians		
Only abstracts and summaries	Complete books cover to cover - read or search any page or all of the book		
Professor won't accept www.joebob's website as a source	Credible sources from hundreds of respected publishers		
Sifting through 4,795 websites affects your social calendar	Just visit one library - Questia - to complete your research in no time at all		
Slave over formatting of bibliographies	Exclusive tools that create your footnotes and bibliography quickly		
TRADITIONAL LIBRARY	QUESTIA'S ONLINE LIBRARY		
TRADITIONAL LIBRARY Closes nightly			
	QUESTIA'S ONLINE LIBRARY		
Closes nightly Late fees, books checked out for	QUESTIA'S ONLINE LIBRARY Open 24 hours a day, 7 days a week Books never checked out and no		
Closes nightly Late fees, books checked out for weeks	QUESTIA'S ONLINE LIBRARY Open 24 hours a day, 7 days a week Books never checked out and no overdue fees Print pages for free Go ahead, highlight and scribble on our pages		
Closes nightly Late fees, books checked out for weeks Need change for the copier	QUESTIA'S ONLINE LIBRARY Open 24 hours a day, 7 days a week Books never checked out and no overdue fees Print pages for free Go ahead, highlight and scribble on		

FIGURE 3-1 Questia marketing campaign: physical library complement, or competition? © 2002, Questia, Inc. All rights reserved.

Features

What Questia overstates in its marketing campaign it more than makes up for with a feature-rich online catalog environment. The first feature that distinguishes it from a traditional catalog, of course, is the presence of full text. (See figure 3-2.) This full text is searchable throughout the database. Questia will also take users directly to pages on which it finds search terms. The search engine proves quirky at times, but the same could be said of most library catalogs. Among the most notable features are the ability to re-search within search results, highlight text, add notes to text, and paste citations and footnotes directly into word processing programs. How helpful these features are to users is undetermined; that these features do not exist in most library interfaces is undeniable.

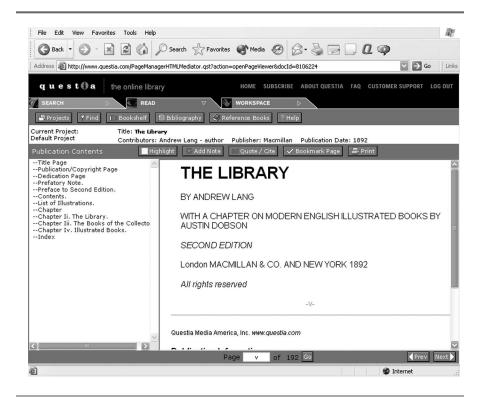


FIGURE 3-2 An example of a Questia online resource. © 2002, Questia, Inc. All rights reserved.

Questia also offers the ability to browse its collection with a variety of broad subject headings. This searchless interface is intriguing, and for a collection of limited size, like Questia's, allows users to wade into the holdings without coming up empty-handed, as most novice attempts at Library of Congress Subject Headings searches do. The most enviable of all its features, however, are Questia's 24 x 7 availability and its multiuser access policy. These two features distinguish it from most library print collections and electronic collections such as netLibrary, which still support only a single user for each title purchased.

Content

Questia opened its digital doors in January 2001 with 35,000 digital books. That total has not increased much in the year since its inception, and Questia is already falling far short of its goal to have 250,000 titles by 2003. An economic downturn, which forced the layoff of several staff, has also slowed production. The firm's founder and CEO, Troy Williams, began with the hope that Questia might serve as a great equalizer for liberal arts content; if, by some miracle, Questia does reach its self-imposed goal of 250,000 titles, its collection would be larger than those of 80 percent of all U.S. academic libraries.² Unfortunately, the number of volumes is not the only thing that counts; quantity means nothing without quality. Besides being almost completely devoted to the humanities and social sciences—Questia has hedged on plans to release more science and business titles—a close look at publishing dates and coverage reveals large collection gaps.

Susan Gibbons, a librarian at the University of Rochester who is also director of the LSTA-funded Ebook Evaluation Project and Digital Initiatives, is the first to provide an in-depth look at the collection status of Questia. A random sampling of 100 monographs had an average publication date of 1973, with only one title published after 1999. Questia attributes the age of its collection to an emphasis on seminal texts, but the retrospective value of these nonfiction texts is limited. A similar sampling of online articles, added in April 2001, showed that the majority were published between 1994 and 1998, with an average publication date of 1994.³ Questia's collection development, which is still based primarily on demand, is haphazard by most library standards, which is why the company relies on the somewhat disingenuous defense that the collection is meant merely to complement existing brick-and-mortar library collections.

Service

Despite Questia's least common denominator collection base, it is still a one-size-fits-all solution. While the user is somewhat trapped within its framework in order to use its features, there is no need to make distinctions between index, abstract, and full text, or between HTML, PDF, and ASCII. These distinctions, which are often lost on patrons, do not exist in Questia's library-in-a-box. Gibbons concludes that as long as library collections remain relevant and vital, Questia is not really a threat to library service; it is, however, a threat to the quality of resources offered to students and faculty. The tone, language, frequency, and breadth of its advertising messages do threaten to drown out the relative silence of most libraries which have not decided whether to acquiesce, retreat, or fight when facing this new challenge.

Pay-by-the-Drink: Ebrary

A slight twist on the Questia model, ebrary presents itself as a New Age photocopy machine. The main difference between Questia and ebrary, besides content, is that ebrary does not require an account to search its database. Cutting and pasting from its resources, however, does incur a fee; hence, the analogy of the photocopier. Its CEO and founder, Christopher Warnock, summarizes, "We are not an ebook company . . . We're not a bookseller . . . We are a software company with a killer app[lication]."5

Philosophy

Perhaps learning from the mistakes of its predecessors (netLibrary also launched a failed individual subscriber effort in its early stages), ebrary adds a marketing component that benefits all relevant stakeholders. Ebrary offers searching, browsing, and reading of its online content. Pay-per-use does not kick in until text is copied or printed from the online resource; the pay-foruse service is run under a debit system that allows users to deposit funds into their account for use of the system. Ebrary's most interesting philosophical departure came when it suggested that everyone, including libraries, get a piece of the action—60 percent to publishers and 5 percent to libraries of the total revenue from activity performed at local terminals. In April 2002, ebrary announced a major shift in this policy, offering libraries unlimited access, with subscription rates based on library type and FTE (full-time equivalent) user base. As it turned out, libraries did not really want a piece of the action, especially from a vendor (go figure). Ebrary now admits that it is probably better that the model failed, since it made the company explore more equitable pricing structures for libraries. The model can still be described as pay-by-thedrink, however, since libraries can choose to either pay the whole cost of copying and printing, or simply subsidize that cost.⁶

By trying to replicate the analog activity of browsing book collections—that is, browse and then pay, like browse and then circulate—rather than copying the activity prescribed by other online information vendors—that is, pay first, and then read, copy, and print—ebrary has hit upon a truly novel business model. Add a killer application like ebrary's web interface to the mix, and you have the second ingredient for a successful business.

Features

Like the adage that says the second mouse gets the cheese, ebrary's adaptations of Questia's feature set is well done. The search engine is faster, the content displayed in a more user-friendly manner, and the features match the integration that patrons are seeking. The fact that users can search and view full text of ebrary's content without buying first is still the most intriguing aspect of its service model, but other features stand out as well. The system highlights full text, and users can jump from hit to hit within a given title. Since the source document is PDF, most of the applicable features of that format are included in the display. (See figure 3–3.)

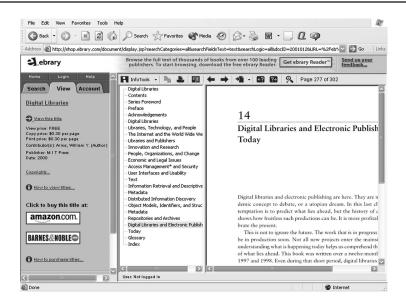


FIGURE 3-3 Ebrary enters the digital library arena. © 2002, ebrary, Inc. All rights reserved.

The InfoTools section (see figure 3-4) allows users to pass searches or specific portions of content to third-party sites. These "channel partners" allow users to translate passages, look up terms in a dictionary or encyclopedia, browse the Web, and purchase the book; moreover, the links to these partners are customizable by libraries, so linking to existing resources which the library is already paying for is also possible.

Content

Ebrary has considerably less content than its fellow e-book distributors, but given a service model that rewards copyright holders to the tune of 60 percent, this is sure to change rapidly. Generally, ebrary's collection of front titles seems more impressive than its competitors, so what it lacks in quantity it seems to be making up for in quality and currency. Although the title list includes many imprints from 2000 and 2001, this can be somewhat misleading, because all public domain classics carry an ebrary imprint; a nonscientific sampling, however, of eighty titles found an average publication date of 1999, which

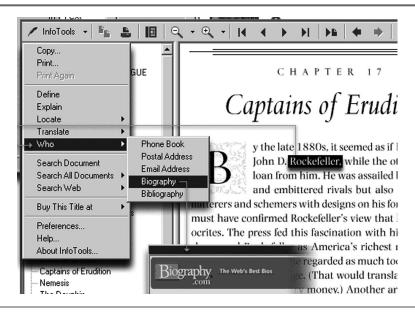


FIGURE 3-4 Ebrary's InfoTools integrates third-party resources into digital library content. © 2002, ebrary, Inc. All rights reserved.

is significantly more recent than the vast majority of Questia's collection.⁷ Moreover, since the initial collection does not include much journal material, the content portion could prove more attractive to libraries that already subscribe to many full-text journal resources.

Ebrary's InfoTools also integrates with content that the library has already purchased. This model should be attractive to libraries that do not want to purchase just another stand-alone full-text module for their users. Being able to control which channels are available does pose collection problems, however, since libraries will have to decide on a suite of least common denominator resources from which the ebrary reader will link.

Service

By marketing itself as a library partner and revising its pricing plans to facilitate organizational access, ebrary is putting good faith behind its effort to serve the end-user, without any suspicion surrounding its intentions. Ebrary has also taken lessons from netLibrary in its approach to offering MARC records to libraries that purchase titles. It will be interesting to see whether libraries decide to insert MARC records into their OPACs, since the titles are not really owned. This represents a greater departure for library practice than entering 856 links to resources that are licensed or endorsed by collection managers.

Whether ebrary itself will survive remains to be seen, but as Mick O'Leary points out, these sorts of innovations usually survive to shape new markets.⁸ By trying to replicate analog library activity—browsing, reading, photocopying—ebrary may be the first to realistically contribute to a major paradigm shift without the corresponding philosophical fallout.

Full-Service Content Development: XanEdu

Somewhere in between Questia and ebrary lies XanEdu, the "Utopia for the mind," as its marketing logo claims. Created by Bell & Howell, and powered by the content of Proquest databases, XanEdu markets itself first as a service to faculty, and then offers added-value content to their students. XanEdu presents one of the more challenging end-runs around libraries, since the content that is marketed to end-users is wrapped up in a service which many libraries do not have. XanEdu allows faculty to submit course reserve content or syllabi, or allows faculty to create their own custom coursepacks online. Faculty too busy to keep up with the changing literature in their field can also enlist Bell & Howell to update the content for them. By partnering with

the online course management giant, Blackboard, XanEdu completes its strategy of cutting out the library middleman and marketing content to users who may already be paying premium dollars for the exact same content, sometimes even from Bell & Howell itself.

As noted, this is a particular challenge to libraries, since the service model creates something that libraries may not be doing, that is, supplying digital access to course readings. Since the guidelines of course reserve materials are built around access to *supplemental* readings, not coursepacks, services like XanEdu put libraries at a disadvantage. Since seamless access to full-text content buried under database front-ends is hidden by many library vendors, tools—even ones that cost users money—that bring that content to light are attractive to end-users. That Bell & Howell is developing this strategy for online access in tandem with its adherence to deep-linking for libraries (the ability to link directly to full text at the article level) seems duplicitous, especially since the XanEdu website issues no warnings about checking with local libraries for licensed access.

Catalog, Content, and Customers: Together at Last?

It's hard to imagine that library technology has come so far so fast. Few predicted the pace at which digital collections, especially e-books, would grow. And while the pace and acceptance of this new medium might best be described as evolutionary, not revolutionary from a publisher's viewpoint, for many libraries, it is world-shattering. For a profession that has had to deal with creating surrogate records for all of its collections, indexes and abstracts for its periodicals, and finding aids for its archival records, the marriage of catalog and content presents troubling, and awe-inspiring, challenges for libraries. This section will assume, for the sake of space, that users want full text; it will ignore, for the sake of retaining readers, the arguments about reading books and articles on computer screens and curling up on beaches with e-books. Digital content is not about reader hardware and software, but about the digitization of content for delivery by whatever mechanism the next brilliant technologist can dream up.

The Walls of the Box

The particular challenge for libraries is to educate users about the walls of digital content that they build up around themselves when deriving content from online vendors, whether access to those resources comes from direct marketing or through library subscription services. In the early days of digi-

tal content, the main challenge was to alert users to the vast wealth of print resources that online databases, index and abstract services, and the Web failed to cover. Now dot-com vendors have supplanted that macro view of library content by trimming down digital content even more and packaging it with a broad range of online features, low-cost alternatives, and remote, round-the-clock access. This will be an especially difficult challenge for libraries to face, as convenience counters authority in the age of the Web.

Unfortunately, the sole attempt (outside of libraries, of course) to bring several different types of content under one umbrella died with the dot-com demise of Contentville. Contentville received a lot of flak from the library world for its pedestrian approach to content, but it should have been lauded for its attempts to bring together a great variety of ephemeral content: books, e-books, out-of-print books, screenplays, dissertations, magazines, study guides, speeches, legal documents, and television transcripts. Its founder, Steven Brill, fell victim to his own naiveté about copyright (a poor excuse for a lawyer), and in many ways played the fall guy for an industry concerned about Napster-like transgressions in the text world. Fallout in the wake of the UnCover class action suit, in which authors were recompensated for the sale of articles online, and the Supreme Court's decision in the Tasini case, in which freelance authors successfully sued to retain copyright of digital versions of their work, put the final nails in the coffin of Contentville in the fall of 2001. It's too late now, but libraries might have learned a lot from the crosscollection search capabilities of Contentville, and the packaging and delivery methods of its content shone in comparison to most interlibrary loan delivery models.

Fortunately, another model exists with a market presence that was overshadowed by Contentville's marketing blitz (a blitz that also contributed to the venture's demise, since it garnered a lot of attention). ELibrary combines the business models of Questia (subscription service), Contentville (varied resources), and ebrary (slick design) into one service that predated all three. Though the market is a bit different, mostly secondary education, the model is similar. ELibrary suffers the same content woes of its Internet brethren, but as revenue flows adjust, clear winners will continue to emerge.

Defining Users

The days of calling them patrons seem nostalgic, but whether libraries call them users, patrons, clients, or customers, an important shift has taken place in defining a library's user base. Many of these new services offer phase one of the Holy Grail that is linking catalog with content, but they have also dissociated patrons from libraries. For reasons unknown, this wholesale export of

responsibility for library users has gone largely unnoticed. Up until the era of personalized access to content, libraries always took responsibility for authenticating and authorizing their users. No library would consider sending a list of names and vital statistics to the publisher of a printed book (for a detailed discussion of privacy concerns, see chapter 7). Why, then, do libraries encourage users to sign up for services to which the library serves as a gateway or subscription aggregator? That more of these companies have not worked out methods for libraries to utilize existing authentication models, such as patron databases or campus directory services, is astounding; that more libraries have not demanded such models is of great concern.

Most library dot-commers like Questia, netLibrary, ebrary, and eLibrary require users to create personal accounts that reside outside of the library. While some users might readily trade personal information for personalization features, there are longer-term issues involved with this client model. The early adopters of netLibrary's e-book content first raised this issue. Since that firm's model tied subscription material to log-in, rather than to point of access or library authentication, user authorization resided outside of the libraries' control mechanisms. This was, however, presented as a feature, since it allowed users to log in directly to netLibrary from any location and always have access to the collections of their home libraries. What netLibrary did not take into account was that these users would not always be associated with their home libraries—students graduate, public library users move. NetLibrary promised that it would seek some alternative that would remove users from its database on a "regular schedule," but since users were not restricted from creating multiple accounts on the system, this method also proved problematic, both technically and from a bibliographic instruction standpoint. Ebrary will likely face similar challenges when it moves from its per-use model to an organizational licensing scheme; a subscription model for libraries does not obviate the need of patrons to establish local accounts for some of the customized ebrary features. Authorizing the use of library materials is a job historically and best provided by libraries; libraries and vendors must work together to integrate library authentication with licensed resources' features and personalization.

LIBRARIES FIGHT BACK AND CATCH UP Adaptations of Dot-com Solutions

No one can accuse libraries of complete inaction when it comes to applying dot-com solutions to traditional digital services. In fact, libraries were the

quickest to jump on several bandwagons, including search engines, book vendor websites, and various virtual reference tools.

Virtual Reference

In one sense, it is too bad that libraries call this relatively new online service "virtual reference," since there is nothing virtual about it; it is *literally* more work, more expertise, and more effort to provide this service. Calling it "virtual" only detracts from those facts. The label also distracts users from the fact that libraries have been providing alternative reference services since the advent of the suggestion box. With gate-counts declining, most libraries have experienced heavy increases in phone, e-mail, and chat reference queries. Most libraries experimenting—or in full production with—online reference services will usually even relate an anecdote of the patron using online reference services within feet of the physical reference desk.

Two of the most popular applications in libraries are 24/7 and Library Systems and Services' (LSSI's) Virtual Reference Desk Software. The latter is actually powered by eGain, the e-commerce CRM solution, and is customized by LSSI for library reference use. The jury may still be out on the use and popularity surrounding online reference service, but early indications show that it is exceedingly popular, especially since, besides books, reference was one of the last remaining library services that still required a trip to the library for real-time service. A body of literature, and several conference opportunities, are already growing up around this new hot library topic. Book-length treatment of the topic began as early as 1998.9

On a national scale, the Internet Public Library (http://www.ipl.org/ref) has been offering e-mail reference service for some time. In 2001, the Library of Congress and OCLC announced a nationwide professional effort to provide virtual reference service around the clock (http://www.loc.gov/rr/digiref/). The service is called QuestionPoint and will allow users to manage their reference systems locally (on an individual level or within a consortium or group of libraries). The local components include ask-a and chat functionality, a local knowledge base, and comprehensive reporting and administrative tools.

No longer the only game in town, libraries have risen to the challenge of virtual reference. When commercial attempts begin to fail due to cost, lack of authority, or simple lack of interest, libraries will be there to offer the service quickly, thoroughly, freely, and authoritatively. Answering questions is definitely an area in which librarians are not prepared to abdicate power.

Online Catalogs and Circulation

As mentioned in the previous chapter, perhaps no other dot-com has received more attention from the library community than Amazon.com. Part fear, part shame, this attention has done more for online catalog development in five years than ILS companies did in the previous twenty. Starting with only the *Books in Print* online data set, Amazon built an online bookselling empire that would eventually expand into other markets, including music, video, computer hardware and software, electronics, toys, and health and beauty. The expansion and financial overextension of Amazon need to be set aside for some specialized treatment of the firm's book catalog, at least for the purposes of this book. Comparisons of this catalog with library online catalogs are not only applicable, they could prove fruitful for the library community.

Given a taste of what the Internet has to offer, users expect more from a normal online catalog, and Amazon (and to a lesser extent Barnes and Noble's BN.com) have set the bar extremely high. In a fashion similar to e-book companies marrying catalog and content, Amazon has succeeded in marrying catalog surrogates with added-value content such as book reviews, chapter excerpts, biographical information, and readers' advisories. Amazon has even applied a library feature that most ILS vendors have not added to their software yet—the ability to submit a search based on any or all of a title's Library of Congress Subject Headings. (See figure 3–5.)

Without tremendous effort, libraries could adopt the well-developed features of Amazon's catalog in order to enrich their patrons' online library experience. Features that promote expert or collegial recommendation, or even serendipitous discovery, would vastly expand the landscape of the traditional online catalog. If the advent of Amazon.com and sites like it does nothing more than cause libraries to address the effectiveness of the online catalog in meeting user needs, then that is sufficient. If the fear of backlash in creating catalogs that are more Amazon-like breeds another decade of inaction, then it will do libraries a great disservice. Here is a (slightly edited) short list of features that self-proclaimed "commercial librarian" Gerry McKiernan posted to the WEB4LIB discussion list in August 2000:

- · A ranked list of the most heavily borrowed books
- · A chronological listing of search results
- · An option of displaying books by user rating
- A "patrons who borrowed this book also borrowed . . ." feature
- A "patrons who borrowed titles by author A also borrowed titles by authors X,Y, and Z" feature

Look for similar books by subject: Browse for books in: Subjects > Reference > Publishing & Books > Library Management Subjects > Reference > General • Subjects > Reference > Publishing & Books > Library Science & Guidance Search for books by subject: Libraries United States Automation Libraries and electronic publi Library Science (General) Library Automation Education / Teaching Language Arts & Disciplines Library & Information Science ■ Information Technology Find books matching ALL checked subjects i.e., each book must be in subject 1 AND subject 2 AND ...

FIGURE 3-5 In 2001, Amazon.com added the cornerstone of the library MARC record, the Library of Congress Subject Headings. Note that a combined search is possible, a feature that few library system vendors offer themselves. © 2002, courtesy of Amazon.com, Inc. All rights reserved.

- A "look for similar books by subject/browse for books in [full listing of associated subject headings]" feature
- A "search for books by subject" feature with listings of headings and associated check-off boxes¹⁰

Although slower paced, the Amazon-like library catalog has been coming along, as ILS vendors tackle technical hurdles and librarians tackle philosophical ones. Sirsi's iBistro (also marketed as iLink to academic libraries) was one of the first library automation products to enhance its catalog interface with added-value content. Although libraries have been adding URLs and table of contents data to MARC records for years, iBistro represented a major departure in that it did not add the new content to the MARC database itself. Instead, it licensed data from a company called Syndetic Solutions, which uses its own data-streaming technology to add content to hit list and record displays on-the-fly. Other ILS vendors, notably Innovative Interfaces, have followed suit with similar added-value content. (See figures 3-6 and 3-7.) Innovative stands alone in its effort to add the valuable content in staff modules as well, allowing collection managers or acquisitions staff to view cover art and book reviews before making a purchase, for example.



FIGURE 3-6 Sirsi's iLink catalog record. © 2002, Sirsi Corp. All rights reserved.

Libraries can also continue to add content enrichment in a fashion similar to ebrary's InfoTools, mentioned previously. By passing queries and highlighted text to other web common gateway interfaces (CGIs), libraries can integrate third-party content services without building an all-inclusive database. Think of this as one-trip shopping, as opposed to one-stop shopping. In the accompanying example from the NCSU Libraries (see figure 3-8), the

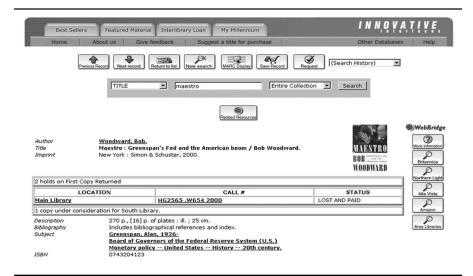


FIGURE 3-7 Innovative Interfaces' Millennium Access Plus catalog enrichment. © 2002, Innovative Interfaces, Inc. All rights reserved.

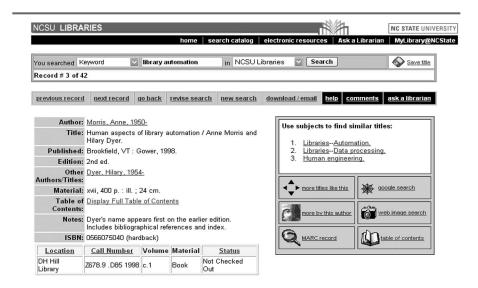


FIGURE 3-8 NCSU Libraries catalog record display. The enriched display is created without any third-party data or added expense. © 2002, NCSU Libraries. All rights reserved.

user is presented with several options associated with either the initial catalog search or metadata from the bibliographic record.

Clicking on "more titles like this," "more by this author," or the title's associated subject headings will keep the user within the local catalog, passing the metadata selected to the existing catalog search CGI. Choosing "google search" or "web image search" will send the user to those external resources with elements of the 245 title as the search term (this could be any other part of the record as well, such as subject or author). Serial titles offer an option to "search for electronic versions," which queries an external database of full-text titles that will lead the user to the appropriate copy for a given citation. (See figure 3–9.)

Even the library standard *Books in Print* from R. R. Bowker has revved up to Internet speed to provide a web front-end for its old CD-ROM database, complete with reviews, metadata searches, and enriched content. Other aggregators of the *Books in Print* data, such as InfoTrac, have added similar links. The fate of such *Books in Print* features is unknown, however, since R. R. Bowker's owner, Reed Elsevier, put the company up for sale in 2001.

	ervices Resources About the Libraries NC State talog Database Finder E-journal Finder Ask a Lib			
NCSU Libraries E-journal Finder - Keyword Results				
New Search	Modify Keyword Search:	Libraries Catalog Search		

Your search for "library " found 83 items:

TITLE	AVAILABILITY	START DATE	END DATE	PROVIDER
Academic and Library Computing	Selected Articles	4/1/1991	5/1/1992	InfoTrac OneFile
"African Journal of Library, Archives & Information Science"	Selected Articles	4/1/1998	Present	Wilson OmniFile: Full Text Mega Edition
Australian Library Journal	Selected Articles	2/1/2000	Present	InfoTrac Custom
Australian Library Journal	Selected Articles	2/1/2000	Present	InfoTrac OneFile
Electronic Library	Full Issue	1999	Present	Emerald Fulltext
Georgia Library Quarterly	Selected Articles	3/1/1998	Present	Wilson OmniFile: Full Text Mega Edition
International Information & Library Review	Full Issue	1993	2001	AP Ideal - Academic Press
Jaumal (California School Library Accociation)	Selected	QM MQQ7	ам маат	Wilson OmniFile: Full Text

FIGURE 3-9 NCSU Libraries' E-journal Finder searches for full electronic journal titles or aggregated full-text resources. © 2002, NCSU Libraries. All rights reserved.

It does not take much to make a library's online catalog more useful to patrons, but abandoning tradition by providing links to resources outside of libraries' control or making available third-party editorial data (like book reviews) within the catalog are not easy tasks. Some libraries may conclude that trying to compete with the services offered by sites like Amazon is not worth the effort, but those that do will be creating familiar interfaces with features appreciated by online consumers.

Google the Library

At some undetermined point in web history, Google surpassed AltaVista as the Web's premier search engine. This popularity may be due to the simplicity of its interface, the whimsical curiosity of the "I Feel Lucky" button, or the name that has quickly become noun, verb, and adjective (as in "Go to Google," "Google it," and "Google world"). Google's unique algorithm, based partly on the number of external pages that link to a resource, made its retrieval system highly accurate; and whether or not its popularity wanes when something even newer comes along, the concept of Google is firmly embedded in the culture of the Internet. Two particular features of the Google world are already making their way into the library world of technology.

Metasearching

The supposed Holy Grail of library resource searching (okay, so there are *two* Holy Grails in this chapter), Google's simple interface that searches everything has become one of the latest luxuries for library users. Elements of metasearching, i.e., the ability to submit a search to several similar or disparate databases, have been around for quite some time—Silver Platter, Z39.50 broadcast, and several Internet search engines—but some librarians still dream of the day when a single submit button will retrieve all that they are looking for. ILS vendors, quicker on the uptake than usual, have almost all come up with a proprietary solution for the multiple search option, although most of these interfaces are merely repurposed versions of Z39.50 clients. The desire to solve the complexities of metasearching had simple roots in the (supposed) bibliographic instruction impossibility of explaining to users that they must go to three main locations to find content: the catalog for books, abstract and index databases for journal articles, and journal aggregators for online full text.

In order to combat this problem, vendors and libraries first turned to Z39.50, the protocol which had been supposedly supplanted by web interfaces. Libraries and vendors alike, however, had overlooked the potential of

Z39.50's broadcast search capabilities. Two inherent problems remain: Z39.50 does not scale to the breadth of resources available, and not all database resources support Z39.50 access to their servers; hence the proprietary solutions of products like MetaFind (Innovative Interfaces), MetaLib (Ex Libris), ENCompass (Endeavor), OneSearch (Sirsi), MuseGlobal, and many more. (See figures 3-10 to 3-12.)

Metasearch and retrieval is one of the most interesting areas of library automation to watch right now. Which solution will offer the best results without watering down content, controlled vocabulary, and vendor feature sets? It will likely be some time before this is figured out. In the meantime, libraries are fortunate to be working closely with ILS and library automation vendors to determine exactly how this software will work.

Fuzzy Matching

Library catalogs have a habit of unkindness when it comes to failed searches. By contrast, search engines like Google have a lot more content to work with in order to attempt positive feedback for almost any query. While most library catalogs will likely never have the capabilities of Google, libraries and their

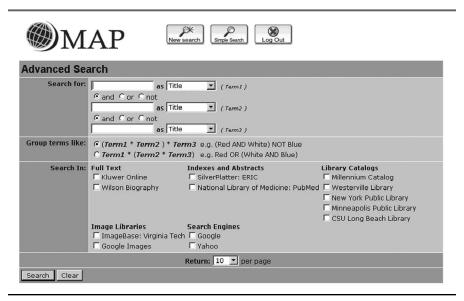


FIGURE 3-10 Innovative Interfaces' MetaFind search engine.

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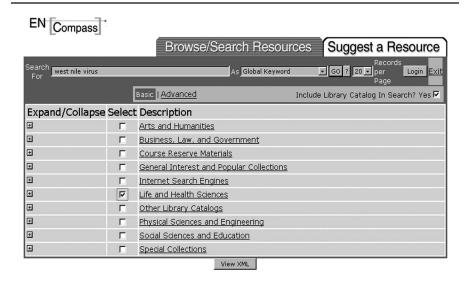


FIGURE 3-11 Endeavor's ENCompass search engine. © 2002, Endeavor Information Systems. All rights reserved.

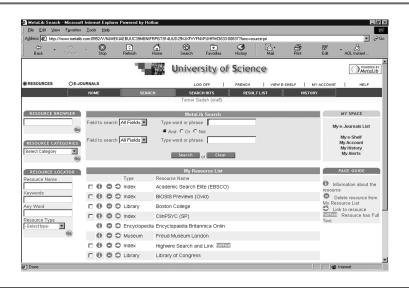


FIGURE 3-12 Ex Libris's MetaLib search engine. © 2002, Ex Libris. All rights reserved.

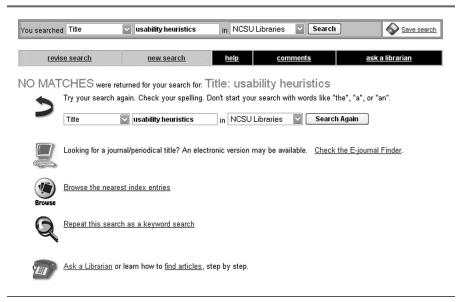


FIGURE 3-13 NCSU Libraries' fuzzy matching. The failed search offers redirections to various resources, and opportunities to rephrase the query.

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vendors could do much more than flip author names and remove leading articles in order to help users conduct searches. Failed catalog searches could offer spell-checkers, add synonym lists for words with multiple versions (such as "theatre" or "catalogue"), expand searches to matching thesauri, or pass searches to other databases when a local search fails. (See figure 3–13.)

New Leverage Opportunities

The features of dot-coms and their corresponding application in libraries are not necessarily mutually exclusive. Libraries could do more with various Internet businesses to enhance their services and raise awareness of libraries in the information marketplace. Here are a few examples.

Ask Jeeves Redirect

Ask Jeeves could use IP detection to determine the searcher's local public library and closest academic one. One of the options might be to search that local catalog for key terms in the query.

Amazon Book Sales

Libraries could use Amazon.com to resell used books. While Amazon takes a large cut from these sales, libraries could maintain an ongoing database of withdrawn and donated titles for sale, rather than relying on annual, laborintensive book sales.

Amazon Redirect

Libraries might add options to buy the book from Amazon when it is not available locally. A less radical approach to this might be to redirect users to the local independent or campus bookstore. Amazingly, most campus bookstores do not offer a searchable database for their catalog of books.

Google Answers

Google recently announced a new fee-based reference question service.¹¹ Imagine if the Library of Congress/OCLC service were to join this effort and provide low-cost reference services to the entire world. The traffic would undoubtedly prove overwhelming at first, but the publicity would be impressive.

Dot-commers are the newcomers in the information industry, and librarians should cease being timid, vindictive, and suspicious of their foray into the realm once dominated by their profession. If libraries apply equal effort in building better services, evaluating the services of competitors, and building bridges to vendors and dot-coms, mutually beneficial solutions will present themselves.

Notes

The epigraph for this chapter is from Mick O'Leary, "New Academic Information Model Bypasses Libraries," Online 25, no. 4 (2001): 72.

- 1. Questia website, at http://www.questia.com/aboutQuestia/faqLibrary.html#faq2. One can hardly help but editorialize at the backhanded compliment that gives libraries a "key role" in the future of research.
- 2. Susan Gibbons, "Growing Competition for Libraries," *Library Hi Tech* 19, no. 4 (2001): 363.
- 3. Gibbons, "Growing Competition," 363-64
- 4. Ibid., 366.
- 5. Mick O'Leary, "Ebrary Shapes New Ebook Paradigm," *EContent* 24, no. 2 (2001): 58.

- 6. Susan Gibbons, "Interview with Christopher Warnock, CEO, CTO and Co-Founder of ebrary," *Librarian's eBook Newsletter* 2, no. 4 (2002).
- 7. Susan Gibbons, "Long-Awaited ebrary Has Arrived," *Librarian's eBook Newsletter* 2, no. 3 (2002).
- 8. O'Leary, "Ebrary Shapes," 58.
- 9. See 2nd Digital Reference Conference (Seattle, Wash., 2000), Facets of Digital Reference (Syracuse: ERIC Clearing House, 2001); Anne G. Lipow, Virtual Reference Desk Training Manual (El Dorado Hills, Calif.: Library Solutions, 2001); R. David Lanks and Abby S. Kasowitz, The AskA Starter Kit: How to Build and Maintain Digital Reference Services (Syracuse: ERIC Clearing House, 1998).
- 10. Gerry McKiernan, e-mail [WEB4LIB], August 2000.
- 11. See https://answers.google.com/answers/main. This is another good example of a dot-com creating better branding than libraries. "Ask a Librarian" services and the Library of Congress's QuestionPoint both give prominence to asking questions, while Google puts the emphasis where it should be, on answers.