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Welcome to Oregon, now let me figure out a way to put you to good use!” That’s pretty much how Fred Reenstjerna greeted me at last year’s Oregon/Washington Library Association Conference. I think that was because, after the initial introductions, Fred and I discovered that we both shared a passion for libraries as well as a determination that technical services managers use their wealth of human resources in the most cost-effective manner. From our shared history on the front lines of a cataloging unit, as filtered through our different employment perspectives, we think we have put together a remarkable release for the Spring 2003 issue.

All of the authors are people with whom I’ve had personal contact in my professional activities. Each of them made such a positive impression on me that I could hardly wait to challenge them to share their views about the changing nature of the cataloging process. In fact, out of the twenty-three prospective contributors I contacted last August, we are overjoyed with thirteen completed articles. I view it as a remarkable testament to the ability of busy people to get the job done!

One of the busiest people I know is Nelia Wurangian-Caan. At many library events she is the center of organizational action—yet her thought-provoking essay shows she has time to imagine a public catalog that can “walk or talk or sing.” I am proud to introduce Bessie Mayes, who shared her vision of creating a conference for library paraprofessionals in San Diego back in the early 1990s and is now, in her role in a military library, cataloging “the essence of volumetric technology … (as in) one submarine looking at another submarine hiding behind an iceberg.” Let me welcome Richard Jackson, who once challenged me to articulate the value of PromptCat to a library school class and is now the Catalog Librarian/Database Manager at the prestigious Huntington Library. Then there is Lloyd Jansen who writes eloquently about his struggle to carry on his mentor’s high cataloging standards while coping within current economic realities.

How could we not include a spokesperson from a bibliographic utility in this theme issue? Gary Houk and Alane Wilson, whom I know from her years as OCLC’s library consultant in the northwest, provides an authoritative look at its past and future plans. Mary Kalnin shares how she takes advantage of OCLC’s more sophisticated interfaces at the University of Washington. Since I know Mary as the listowner of LIBSUP-L, an electronic discussion list for library support staff, I would expect no less from this early-adopter of new technology. I know Deborah Fritz as an excellent cataloging instructor traveling throughout the U.S. as well as a small businesswoman who has invented new employment opportunities for librarians. She begs us not to forget the training component in our rush to embrace technology and increase productivity.

As a bonus, the electronic version of this issue of OLAQ will present six additional articles that simply would not fit within the limitations of this print journal. “Maggie” Horn, whose career I have followed from California, to Arizona, to New York, implores us not to give up on standards in our haste to give the “average Joe/Jane” what s/he wants. And my favorite Canadian colleague, Trina Grover, insists the craft of cataloging can live in harmony with the technological tools that ease the process. Daniel CannCasciato, a NACO trainer, insists we really belong in “public” or “patron,” rather than “technical” services. Two librarians I met in my own seminars have unique perspectives about technical services from their managerial point of view. Sharon Walbridge sees cataloging as a hybrid activity—“part productivity and part intellectual process,” Felicia Uhden believes there could be something more. The woman who once told me she considered the MARC record the “finest creation of human beings” takes us into the future with an OPAC that blends the “art” with the “science,” and maybe even a bit of “magic.” Finally, Oregon’s own outspoken public librarian, Fred Reenstjerna, insists, “There’s no magic in the drinking water in Dublin, Ohio, that turns people into Super Librarians.” Fred’s lively commentary asks why managers have turned technical services “into a pre-industrial cottage industry” rather than Eli Whitney’s “American factory system.” You won’t want to miss any of it!

We hope you will enjoy these stimulating essays, in print and on the Web, at http://www.olaweb.org/quarterly

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Guest Editor
Beyond MARC:
New Trends for the Library of the Future

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Introduction
It is vitally important that the library profession keep pace with new technologies being developed for the public by industries across the world. The library has to adapt to changing trends and life-style issues. Some changes may necessitate a different approach to the traditional roles and methods of operation. Most libraries are meeting a host of challenges presented by industries and new technologies, and are incorporating new ideas into the profession to better serve their clients. The influence of recent industrial changes has resulted in some libraries experiencing change in their methods of operating.

For example, some functions of technical services are being outsourced to private businesses. Some libraries find outsourcing easier and more cost effective than hiring personnel to perform these traditionally held functions. Another profound change that has already affected how libraries operate as service providers is the change in how they present and describe content. MARC, once the traditional language of choice for libraries in describing format and content, is now being questioned as to its relevance. As a library-specific language, it lacked interoperability with other more modern languages used on the Internet such as HTML, SGML, and XML. MARC’s inability to be offered as an industry-wide standard was cause for concern among vendors that historically provided service to libraries. Unlike MARC, however, XML is derived from HGML and SGML, and is better suited to describe the attributes of the technological offerings of the private sector, colleges, hospitals, and institutions. XML is extendible, interoperable with other ML languages, and its use has opened the collections of libraries across the world for viewing, unlike a unique program or stand-alone application could.

X-MARCs the Spot
My attention was first drawn to XML when I began to read e-mails on AUTOCAT discussing the concept of using XML languages to replace the traditional MARC language. XML advocates argued for the new language and the opportunity it provided to be more descriptive with the emerging technology and resources. Those opposed to XML proposed that traditional MARC could be modified to accommodate the ever-changing data formats or electronic resources. MARC was also considered to have a proven track record, whereas no one knew if XML would work well with established rules and procedures that had been a part of library tradition for some time. After much research on XML, my conclusion is that both sides are correct.

And the winner is …
While attending the American Library Cataloging and Metadata Institute conference in Washington DC, in November 2002, one of the presenters commented that "Dublin Core is so yesterday news." Dublin Core was OCLC’s first attempt at migration from MARC to an extensible markup language. However, with formal standardization of Dublin Core-XML, OCLC had taken the next step in accommodating a broader industry in a rapidly expanding market in format language on the Web. OCLC developed an XML schema that preserved many MARC elements, but made the language extensible. Users could retain the traditional standards of MARC or move on to the DC-XML for the more advanced digital library or special library integrated needs.
This was confirmed in communications with Richard Greene, Metadata Director for OCLC. He stated that DC-XML is available for use by libraries that need it now for their special collections (movie, museum, medical, etc.). Libraries can migrate from MARC to DC-XML via portals. But libraries primarily using XML schemas cannot be migrated to MARC. Round-tripability does not exist between the two because of MARC’s non-extensible structure.

The Volumetric/DC-XML/SMIL Theory
Space and Naval Warfare Systems Center San Diego (SSC San Diego) is on the leading edge of technological advances. I provide original descriptive cataloging for all formats and reports produced by the Center and other agencies of the federal government. The Center is involved in developing state-of-the-art technologies. An example is volumetric technology. Volumetric technology allows a total view of an object. All sides of a volumetric projected object can be seen with the naked eye, as opposed to the 2-D or 3-D projected image that requires special glasses or eye wear to view. As a Cataloger with a self-described title of Descriptive Data Format Specialist, my dilemma at times is finding subject headings for new technology in LC Subject Headings or science thesauri resources. Consequently, when this new technology is finally introduced into the public sector, which format and cataloging language will be better suited to describe these new phenomena?

Since DC-XML can link with a few other Internet-based languages, I wondered what data structure could capture the essence of volumetric technology. Again, the volumetric concept allows for 360-degree viewing of an object. That object could be a human pelvis, an airplane on the monitor of an Air Traffic Controller, one submarine looking at another submarine hiding behind an iceberg, or a molecule formation. Given these attributes, the only language that could currently be utilized for this type of new technology would have to be extensible. It would be difficult at best for traditional MARC language to be utilized in providing a basic description of this device. Part of the structure itself is a computer with specialized plug-ins, accompanied by a highly technical reflective device. This illustrates the limitation of traditional MARC, which is good when providing descriptive content for books, videos, sound recordings, etc. But DC-XML provides the extensible tags for the objects themselves.

In theory, DC-XML could be linked in application with SMIL (Synchronized Multimedia Integration Language 2.0). SMIL incorporates audio and textual content data. Viewing objects directly from a 360-degree angle, like the human pelvis, could take on a totally new meaning. The only
requirement for other extensible languages to be used with SMIL is that the “textual content include mark-up tags for the desired elements and that those elements include unique identifiers that can be referenced in the SMIL files.” DC-XML in theory could work with SMIL with regard to this technology in the future, or even now with electronics books and sound recordings at music libraries.

Currently, the technology to view the volumetric objects only allows for a height of up to 36 inches a low of 12 inches under a dome. Be assured that the capability for this technology to expand to the nearest virtual reality 360-degree “interactive-viewable theatre” near you is fast approaching.

Conclusion
The library profession has historically adapted to shifts in technology and worldwide industries. The entire profession has met many challenges with great courage and determination to survive as a unit. Within the last decade, however, new challenges such as downsizing, outsourcing, and cost cutting measures by federal, state, and local governments have resulted in some libraries closing their doors forever. Still, some advances allow the profession to change and re-invent itself as specialized providers of information. For Reference Librarians, the URL replaced the encyclopedia and a host of other reference aides. For Technical Services, the new methods of describing content and text may now include new language structure. XML, like MARC, can become just as familiar as MARC. Techniques on Connexion™ such as constant data and text stream could help in initial use of DC-XML. XML utilizes start and end tags (elements) and attributes (fixed or variable in MARC). Theoretically, creating macro text streams in Connexion for XML tags and attributes could increase efficiency. The growing popularity of XML will present more challenges for future

Descriptive Data Format Specialists. I am confident the library profession will continue to evolve within its niche, by utilizing new industry standards and emerging technology.

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The Craft of Local Practice:
How Catalogers are Gaining Efficiency but Losing Control

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Introduction
Ever since the Library of Congress (LC) began distributing catalog cards to libraries in the early 20th century, catalogers have found new ways to decrease redundancy and improve efficiency. Automation in the form of time saving devices such as bibliographic utilities, outsourcing with third-party vendors, and sophisticated editing capabilities in Integrated Library Systems have moved cataloging light years beyond the days of filing cards written meticulously in “library hand.” The Anglo-American Cataloging Rules (AACR2) and LC’s companion rule interpretations, LC subject headings, the development of the MARC format, continual revision of the Dewey Decimal and Library of Congress classification schemes, the growth of the Program for Cooperative Cataloging, and the development of Z39.50 are all intended to make it easier for libraries to share cataloging, and, in theory, to catalog things more or less the same way. But with the increased productivity also comes a loss of autonomy. While these advances have allowed even the smallest libraries to boast quality catalogs, the more catalogers rely on centralized cataloging and vendor outsourcing, the less control they wield over their local databases.

Yet with so many rules, interpretations, standards, and policies to monitor it is little wonder that one is hard pressed to find two catalogers who would catalog the same item in exactly the same way. This is because all the standards in the world are no match for the vagaries that my cataloging professor in library school called “cataloger taste and judgement.” It is this taste and judgement, coupled with a solid foundation in the rules and standards, that moves cataloging from being merely a mechanical exercise and into the realm of a craft. Rules and standards can light the way for the cataloger, but strict adherence to these standards does not necessarily result in a catalog record that is helpful to the catalog user. Only the skilled imposition of judgement by a trained cataloger can transform a motley collection of individual records into a coherent, cohesive work more valuable to library customers and staff than most purchased reference books and databases.

At the Stockton-San Joaquin County Public Library in California, we have a tradition of local practices for copy cataloging that have evolved over the years, and that go well beyond just accepting copy found on OCLC. These practices allow us to craft our catalog to be of the most use to our customers. Yet, as is the case with many libraries, a myriad of factors all conspire against the continuation of these practices and threaten to squeeze the craft out of our catalog in the name of efficiency. This paper will look at some of these factors, including loss of staff, a new ILS system, non-English and non-book materials, consortium partners, and authority control, as we attempt to maintain the old craft while maintaining productivity.

Loss of Staff
Much of a catalog’s effectiveness depends on the skill and experience of those building it. 1999 saw the retirement of our Head Cataloger, a Margaret Mann Citation recipient who once sat on the Joint Steering Committee for AACR2, and was active in the Association for Library Collections and...
Technical Services (ALCTS), and was an early advocate for what became the Program for Cooperative Cataloging (PCC). During her seventeen-year tenure she crafted many of our local practices, and upon her retirement this legacy was passed down to me. One of my biggest challenges is moving forward with efforts to streamline our cataloging work while staying true to the high standards that my mentor instilled in me. We not only lost her experience and knowledge when she retired, but also her productivity. While I received the title of Head Cataloger, we lost a cataloger when her position was not filled.

In late-2002 we suffered another major loss with the retirement of one of our three Cataloging Library Assistants. Most of her thirty-one years of experience in the library system was spent in Cataloging, and not only was she highly trained in cataloging rules and standards, but with formal education and training as a musician she cataloged all of our music materials. Partly as a result of a severe budget crisis, it was decided not to fill her position. Even if we could hire someone, it takes more than just a warm body to replace the kind of skill, experience, and institutional memory she developed over the past three decades.

**Integrated Library Systems: With Us or Against Us?**

In 2002 my library selected a new Integrated Library System (ILS). As we got deeper into the process, it became clear that many ILS vendors are more concerned with luring customers with sexy bells and whistles than with providing catalogs built solidly upon principles. In our case, it was difficult to separate the promises made by the vendors from the reality of what their products really can do. Attempts at onsite visits and conference calls with other libraries were only moderately helpful since few existing customers have upgraded to the latest versions of software that we were being peddled. While we were being razzledazzled with alluring features such as dust jackets and book reviews in the OPAC, it was only later that we discovered shortcomings of how the catalog works—elements that fly in the face of fundamental cataloging principles. For instance, one vendor’s OPAC is completely driven by keyword out of the box. If no local modifications are made upon installation, keyword searches are performed with no obvious option to perform an authority search. Even if the user chooses the author, title, or subject search buttons, the search performed is a keyword search within those fields. Just try doing a subject search for “baseball” in this environment and you’ll quickly see how difficult it is to find something useful without the aid of controlled subject headings to help users narrow down their search. With this kind of catalog the years of diligent work that catalogers put into building authority control and useful cross-references is tossed out with the bath water.

More troubles lie in wait for those who manage to navigate their way to authority searching in this particular OPAC. To my shock, no link is made between the MARC 100 and 240 fields when you have a uniform title main entry. If you search for the uniform title for Beethoven’s 5th Symphony, the only hits you retrieve in this particular catalog are cases when that work in entered as a 700 name-title added entry. If there is a recording that has that work entered as the main entry (i.e., 100/240 combination) you do not retrieve that record as one of the hits under the uniform title search. Yet, AACR2...
rule 25.1 says that one of the purposes of a uniform title is “for bringing together all catalogue entries for a work when various manifestations (e.g., editions, translations) of it have appeared under various titles.” So, this fundamental cataloging principle is undermined by deficiencies in the structure of the OPAC. Examples such as this make it hard to believe vendors who promise that their products are fully compatible with the MARC record and cataloging standards. In the case of this particular vendor, a representative assured me that the 100/240 link would be functional in a future version of the software.

**Non-English and New Formats**

Our library actively collects materials in Spanish, Vietnamese, Cambodian/Khmer, Laotian, Hmong, Chinese, Tagalog, and Thai. Unfortunately, our catalogers are all English-only speakers, making it a challenge to provide quality access to these materials. Even if we had a Khmer, Laotian, and/or Thai speaker on staff, our current ILS cannot accommodate those non-Roman scripts. As a result, titles in these languages go into our collection uncataloged.

The cataloging for our Spanish, Chinese, and Vietnamese materials is contracted out to a third party. While this service is a godsend in giving us the ability to load quality records into the database for these materials, and despite careful attention to detail in our written guidelines, there are inevitably inconsistencies with our own in-house cataloging that arise, both in description and in classification and subject analysis. We do some spot-checking of records to make sure our guidelines are being followed, but close examination of all records would defeat the purpose for contracting out this cataloging. If we have the time and skill to look at the records that closely, why not just do the cataloging ourselves and save the money? While we trust the cataloging is done well, it does not necessarily dovetail consistently with our own in-house cataloging.

Another pressure that challenges the craft we put into our cataloging is the explosion of non-print media. For many years we only had VHS videotapes and audiocassettes to reckon with. Now we have compact discs, DVDs, CD-ROMs, and Web-based subscription databases to contend with. Popular music compact discs are now further complicated by the introduction of “edited” and “explicit” versions of titles, both of which we purchase, and require separate records. As non-print materials receive a higher proportion of our materials budget, it means more attention must be devoted to the more complex and time-consuming cataloging of these formats.

**Catalog Partners**

In 1998 our library entered into an arrangement with a small public library in the region. That library was not yet automated, but was under pressure to do so in order to participate in our regional consortium’s shared Z39.50 catalog. Rather than acquire and maintain a separate system on their own, it made financial and logistical sense for them to contract with our library to share our ILS and receive training and technical support from us.

All the staff at this small system wear many hats, with no one trained or working exclusively as a cataloger. Catalog cards were basically accepted as is from OCLC and their primary book vendor. With such limited resources, it was immediately clear that it would be impractical to expect them to conform to the same local cataloging practices that we developed. We gave their staff some rudimentary training in copy cataloging and some of our local practices, with an emphasis in basic authority control, but with little time or resources on their end to do much more than dump records into our shared database we knew we would see a new era of inconsistencies in our catalog as a result of this arrangement. While their customers now have the benefits of automated circulation and an OPAC, flipping the switch on the long anticipated sharing of
materials through the ILS’s request system has yet to take place. Our customers can see the other libraries holding in our OPAC, but still must place an ILL request for those materials. More often, the presence of these bibliographic records and holdings in our catalog is a source of confusion and/or frustration. While only one of countless examples in the trend of new consortial arrangements between libraries, our case has resulted in a catalog less friendly, and as a result less useful, to our customers.

Authority Control
Authority control has been a top priority for our database since it was first automated in our library in 1990. We perform authority control for virtually every heading on every record we download into our catalog, checking for and exporting new and revised headings from OCLC or the LC Authority File. This work is simply folded into our other cataloging work, but can still take a considerable amount of time, especially considering the number of names that can appear on videos and sound recordings. While there are services that can automatically deliver and update headings in a catalog, we are hesitant to use such a service for fear of losing countless cross-references that we have added locally to authority records over the years. These cross-references are another added value to our customers that make the catalog easier to use for our customers; a value that could be lost if we outsourced this critical aspect of our cataloging workflow.

Conclusion
I do not intend this paper to merely be a forum in which to complain about the woes and troubles we Catalogers face. I merely hope to illustrate how cooperative cataloging efforts, third party cataloging services, and automated methods to make cataloging more efficient do not by themselves necessarily lead to a better catalog for our users. A key to the usefulness and effectiveness of a catalog is in applying our cataloging tools and standards consistently across the database, while adding value to our catalogs locally to meet the specific needs of each catalog’s users. That application, which I consider a major aspect of the “craft” of our profession, is what turns the catalog from a potential jumble of individual bibliographic records into a wholly understandable, predictable, and useful tool. Automation alone cannot produce a catalog that can be logically understood and be of maximum utility to all customers. It takes the skill and expertise of local staff to take the building blocks automation and cooperative efforts provide to craft a catalog that provides the greatest and most comprehensive access to our collections for our customers.

References
Authority Control is Alive and ... Well?

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Reports of the demise of authority control have been greatly exaggerated. Although such features as keyword searching, truncation, and Boolean coordination have greatly enhanced the possibilities for retrieval, they have not eliminated the need for authority control. In fact, as our databases have grown, merged in consortia, and expanded their scope, the need for authority control has never been greater.

The primary functions of authority control are well known: it assures that all access points are consistent, and it helps guide searchers to the correct heading by means of references from other terms one might search under (Taylor, 1984). An additional function has become more prominent in recent years: that of facilitating the automatic clean up and maintenance of headings in a database. It is this function that concerns us here.

Arguments against authority control are often based not so much on its inefficacy, but on its infeasibility, that is, that the costs of authority control outweigh its potential benefits. Thus it is encouraging that computer technology, while not eliminating the need for authority control, has begun to do much both to improve its benefits and to reduce its costs. In more and more catalogs, the benefits of authority control are being extended to users—not only the “invisible” benefit of having consistent headings, but also the very visible use of references, complex reference notes, and scope notes to aid and enhance the searching process.

At the same time, more sophisticated automated authority control systems, and better services from authority control vendors, are bringing the costs of authority control down to within the reach of even small libraries.

In the past, a cataloger who encountered a newly authorized heading that differed from the library’s existing headings may have been reluctant to adopt the established form, because the time and resources needed to update the existing records were not available. Likewise, when an authorized heading was updated, older records might be left unchanged, resulting in a split catalog and confusion for users. This need no longer be the case. Authority control systems, using the same syntetic structure that guides searchers to valid headings, can also automatically map headings from invalid or earlier forms to the correct ones. For example, recently some 600 subject headings beginning with “Afro-American” were changed to forms beginning “African American.” At the time, my library had just implemented an in-house automated authority control module, and what would have been a tedious and time-consuming project was performed correctly and almost effortlessly overnight.

The use of authority records to correct and maintain headings is not a new idea—Michael Gorman spoke of it in 1979 at institutes held by the Library and Information Technology Association (Gorman, 1982)—but in recent years it has grown into a widely used and indeed essential part of database maintenance. Automated
authority control systems can be used to clean up an existing database, provide ongoing authority control for current cataloging, and keep the entire database synchronized with changes in headings.

Very often, this involves the use of outside vendors. At first, it might seem surprising that such a specialized area as authority control would be amenable to outsourcing. However, one must distinguish here between authority work and authority control. The former involves determining the forms of new headings and establishing them according to the rules. The latter refers to maintaining bibliographic headings in accordance with established forms (Taylor, 1984). Authority work is an intellectual endeavor requiring research and a high level of expertise; authority control can often be achieved through automated means.

Vendors who provide authority control services (Library Technologies, Inc., Blackwell North America, and OCLC to name a few) can perform quickly and relatively inexpensively work that many libraries would be unable to do at all in house. This is particularly true for libraries that have not practiced authority control in the past, have not retrospectively maintained headings, or have outsourced a large retrospective conversion project. Local systems are not designed to authorize en masse the headings in a large bibliographic file; authority records must still be individually identified and loaded into the local system. Authority control vendors, however, can run vast numbers of bibliographic records against the entire national authority file, linking headings and flipping those that match “see” references to the authorized form. They may employ special matching algorithms to link headings that would otherwise be missed because of minor errors or differences. The corrected bibliographic records can be returned to the library in a short time (minutes to weeks, depending on the number of records) for reloading, along with a file of all the authority records to which bibliographic headings were linked. Vendors can also keep track of which authority records a library already has, so that future work will result in only new authorities being sent. The entire process can be made routine, and is quick and inexpensive enough that many libraries have eliminated authority checking during cataloging. It would seem that outsourcing authority control is an ideal solution to an otherwise expensive and time-consuming procedure.

Or is it? How effective is the service provided by vendors? The surprising answer is that it seems no one really knows. Certainly, there have been many reports of experiences with vendor-provided authority control, and generally these have indicated a successful and satisfying result. (See for example Lam, 2001; Tsui and Hinders, 1998; Johns, 1997; Bailey and Deemer, 1997.) Vendors are sometimes reported as having been able to link over 95 percent of the headings in a database to an authority record. However, I was unable to find a single report indicating how many of the headings were correctly authorized. The assumption seems to be that once a bibliographic heading is either matched to an authorized heading, or flipped to one via a “see” reference, it is considered to be correct.

My own experience leads me to believe this is often not the case. I recall being surprised to see the heading *Kool G Rap (Musician)* as a main entry for a legal report from 1903. The name in the title statement was Nathaniel Wilson, which, it turned out, is the singer’s real name, and naturally appears as a “see” reference in his authority record. Without dates to differentiate the headings, and without a human checker to spot the error, our authority control vendor had automatically flipped the heading. I changed it back to *Wilson, Nathaniel*. However, after I had loaded the authority records provided to us by the vendor, our own in-house
authority control system performed the same procedure, and the rap singer was back. At this point, our principal rare book cataloger did the necessary research and established *Wilson, Nathaniel, 1836 to 1922* through NACO.

Stories like this have been around. The most famous example is the mapping of *Madonna* (the singer) to *Mary, Blessed Virgin, Saint* (DeCandido, 1990). Unfortunately, most such errors are not nearly so egregious and easy to spot, but if you search through OCLC or RLIN long enough, you will find some very interesting things. For example, Edgar Powell, an English historian born in 1853, also apparently performed in *The King and I* in the 1960s. *Cartwright, David W., 1939–* somehow managed to write *Natural history of western wild animals …* in 1875.

Subject headings are not immune. *Under China* painters you will find, as expected, works on the painting of porcelain plates. However, you will also find works on painters who live in China. (Automated systems have apparently confused the perfectly valid heading *Painters-China* with the “see” reference *Painters, China*, and flipped the heading inappropriately.) Oddly, *New York (Colon) y* appears in many subject headings, although it is only valid as a name; many of these are followed by corporate bodies (e.g., *New York (Colon) Public Library*) that did not exist until after New York became a state. Errors like this are explainable as a by-product of automated authority control; it is unlikely that a human cataloger would have made such mistakes.

How many headings are linked in error by automated systems? That is difficult to say. Much certainly depends on the sophistication of the system or vendor used, the nature of the collection, and the library’s past cataloging practices. Clearly the vast majority of headings are being correctly authorized. But it is also clear that some damage is being done to the integrity of our bibliographic files.

Does this really matter? Does the occasional wrong heading make that much difference? I strongly believe that it does. First, even if the percentage of errors is tiny, when there are millions of headings, that is still a lot of errors. Furthermore, these are errors that directly affect a record’s retrievability, without which nothing else matters. Second, there is no systematic way to find these errors. Most can be found only by chance, and few are as obvious as Kool G Rap. Third, a record with an incorrect heading may be uploaded to a bibliographic utility, where other libraries may copy catalog from it until the error begins to acquire a kind of truth.

Vendors certainly do not carry all the blame. Automated authority control in local systems operates on the same principles and will create the same errors if not carefully monitored. Authority control is subtle and complex, and unso-
Phisticated matching algorithms have certainly caused many errors. But the real problem lies in the assumption that any bibliographic heading that matches a “see” reference can be positively identified with the heading pointed to by that reference. This assumption is often incorrect, particularly with common names that are undifferentiated by dates.

Most libraries that contract with a vendor for authority control want to see as many of their headings authorized as possible. As long as quantity instead of quality remains the more important criterion by which vendors are evaluated, and as long as no one is really checking on the results, competitive pressures will lead vendors to try to link as many headings as possible, increasing the likelihood of inaccurate matching. There are still many names for which no authority records exist, and these will sometimes be linked to someone else who happens to have a similar name.

Many libraries opt for vendor-supplied authority control because the cost can be considerably less than that of doing it locally, although many administrators fail to consider the additional costs of maintaining the system, and monitoring and cleaning up the results. Unfortunately, the inadequacies of local systems also leave many libraries with no choice but to outsource authority control or do without. Better systems would allow more libraries to perform authority control in house.

Authority control remains essential in meeting the objectives of a catalog. It is what sets our catalogs apart from almost every other kind of information retrieval system (need I mention the Web?), and as such we should embrace it. The more than 6 million authority records created by the Library of Congress and the cooperative programs represent an immense intellectual achievement and a treasure in which we all have a share. Full authority control is at last becoming achievable. Automated systems are a necessary part of this, but we must own the process and demand more of both our systems and our vendors.

References


Handcrafted or Mass Produced: What are You Willing to Pay and is it Worth it?

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The Industrial Revolution gets bad press. The phrase tends to conjure up images of fields and teams of oxen giving way to factories belching smoke into the once clear rural skies. Dehumanized workers toiling at boring, repetitive tasks while they dream of the bucolic, agrarian past.

So, the theme of this issue of OLAQ must be considered somewhat provocative. For the artisans and craftspeople known as catalogers Industrializing the Work Flow: New Trends in Technical Services is likely to suggest that a new trend in technical services is an increasing dependence on bland bibliographic records, not well made, received from some cataloging factory thousands of miles away. And you can have those records in any color as long as it’s black.

As a long-time staff member of what to some is a big cataloging factory, I’d like to suggest that industrializing workflows in technical services would bring many benefits, just as the first and second Industrial Revolutions did. Without the Industrial Revolutions, for example, this journal might not exist, OCLC definitely wouldn’t exist, and there’s a very good chance that the public library wouldn’t either. Before mechanization, factories—even libraries—were cottage industries. Work processes were generally carried on by means of hand labor and simple tools.

Mechanical inventions changed how textiles were made, and how library catalog cards were produced.

In the world of libraries, the mechanization of the production of a library catalog was revolutionary, changing fundamentally the nature of the catalog. The first library catalog goes back to the Great Library of Alexandria. The Alexandrians from Callimachus onwards tried to keep track of what the Library owned by means of a subject catalog. In this they followed Aristotle’s divisions of knowledge. The first recorded Librarian was Zenodotus of Ephesus, holding that post from the end of Ptolemy I’s reign until 245 B.C.E. His successor Callimachus of Cyrene was perhaps Alexandria’s most famous librarian, creating for the first time a subject catalog in 120,000 scrolls of the Library’s holdings, called the Pinakes or Tables (Bevan, 1968). And for about 2,000 years, things pretty much stayed the same. A librarian would record by hand the information about items in a library’s collection creating, in essence, an inventory list. The first Revolution in Cataloging allowed the hand crafted catalog to give way to the typewritten one, in 1901 when the Library of Congress began its card program thus extending, multiplying and leveraging the work of the individual cataloger, and ushering in the era of shared cataloging.

The second Revolution in Cataloging came a relatively short time later but it was another giant leap forward. With the birth of the Ohio College Library Center’s online-shared cataloging service in 1971, librarianship was poised to reach another level of bibliographic efficiency.

In 1965, when Fred Kilgour proposed an online-shared cataloging system, you must appreciate the fact that computerized library systems did not exist, networked computers would not exist until 1972, and there was no agreed-upon standard for communicating bibliographic data. There were no cathode ray tube terminals with lower-case characters and there were no retrieval
systems that could retrieve single entries from an online catalog.

It is no exaggeration to say that the OCLC Online Union Catalog and Shared Cataloging System pioneered the computer revolution in libraries. It enabled libraries to rapidly and efficiently catalog books and print customized catalog cards. The database was not only an electronic card catalog; it was an electronic union catalog that provided location information for the materials listed in the catalog by participating libraries. It was a new library tool that was dynamic (Smith, 1994).

The shared cataloging system made it unnecessary for more than one library to originally catalog an item. The system made copy cataloging not only practical, but also widely available. Presently, most libraries have to do original cataloging for only about six of every 100 items they acquire. The shared cataloging system also increased productivity of catalogers. For example, Ohio University reported that the first year it used the OCLC system, it was able to increase the number of books cataloged by a third, while reducing its staff by 17 positions through attrition (Smith, 1997).

For the year ended June 30, 2002, libraries cataloged 49.4 million items on the OCLC system and added 2.7 million records to the OCLC database. Imagine the cost of originally cataloging 49.4 million items! At this writing in 2003, WorldCat contained more than 51 million records and more than 884 million location listings.

However, more than 30 years after the introduction of shared cataloging, the second Revolution in Cataloging has yet to fully impact the work of most catalogers. Cataloging is still a mostly mechanized cottage industry. “Hand crafted one at a time to last a lifetime.” Although this is a phrase from a modern advertisement for handmade furniture, it could very well be the motto of many a cataloger working in these early years of the 21st century. Automation in cataloging in particular still is and has been used as a tool to get old tasks accomplished more productively, rather than as a tool to create more productive ways of getting things done.

Automation in cataloging in particular still is and has been used as a tool to get old tasks accomplished more productively, rather than as a tool to create more productive ways of getting things done. In other words, collectively, we’ve done a fine job of using machines to share, extend, leverage, and multiply the work of individual catalogers. The cataloging tools and services OCLC has provided to catalogers for decades allowed WorldCat to become the huge, rich metadata repository that it is, and all librarians should take great pride in that accomplishment.

But OCLC founder Fred Kilgour asked in 1977 “are we automating nineteenth-century librarianship?” Phrased another way, have we extended, multiplied, and leveraged human mental abilities in cataloging? Probably not. Cataloging is still a labor-intensive activity, focused on the physical manifestation of a printed work. Even “copy” cataloging often is not. Local fields and data are added by local employees to address the perceived requirements of the local communities served. This is as if the employees of John Smith’s Ford Dealership in Columbus, Ohio took each shipment of Explorers that arrived on their lot and added a window on the control panel that displayed Ohio State University football scores, as well as replaced the rear window with an extra long tailgate for tailgating parties. Do all Explorer buyers in Columbus, Ohio want these local features? No. Does it add to the cost of the Explorers in Columbus? Yes.
The cost of cataloging, whether it’s copy cataloging or original cataloging, is not just the cost of a record from OCLC or RLG. It is also the cost of training and paying catalogers, office space, computers, networks, and materials. Studies show that the total cost of cataloging is around $30 per title and even higher for non-book, non-English titles. With the number of catalogers declining rapidly, the number of trained catalogers graduating from library schools declining, and with most libraries’ budgets seeing drastic reductions, the cost of cataloging is, or will be, on the minds of library administrators. And using Z39.50 in an Internet scavenger hunt to locate “free” records will not solve the budget crisis because the record is a very small part of the total cost.

The silver lining to this cloudy situation is an environment ripe for change. Lack of expertise and lack of money will drive decision makers to seek effective ways of doing the same things (the first Industrial Revolution) but will also encourage those visionary decision makers to reshape not only the workflow but also to reshape library services to their communities (the second Industrial Revolution). And libraries’ partners like OCLC must be prepared to offer services and tools that extend services to users beyond the library system.

Cataloging is a means to an end; it has evolved over time and must continue to evolve so that libraries can meet the economic and competitive challenges they now face. In the past, descriptive cataloging helped users discover authoritative knowledge resources held by a particular library, but now cataloging must also help connect them to those authoritative resources, whether held by the library or by some other provider. The purpose of the catalog is no longer just a form of inventory control (classification is a particularly sophisticated form of telling people where a particular package is located in the warehouse). Librarians have been good at training library users how to read rich, complex inventory records but our communities of users are more discerning consumers now. They have used many inventory control systems with user interfaces designed for the user not the warehouse manager. Users can find books and clothes using simple search queries at Amazon and Lands End. They can read several pages of a book, and virtually try clothes on before buying. However, library users are, for the most part, expected to parse a sophisticated set of metadata in order to make a “purchase” decision about the invisible content.

Amazon, Lands End and Google are among many institutions outside of the library community that, arguably, have the same public purpose as libraries: to connect people to things they want and need. To meet these needs, they have developed non-library metadata to facilitate the discovery and fulfillment process. New metadata standards and formats for a variety of resources have been born, won’t go away, and must be dealt with by the library community. The Web has connected previously disparate market places in a shared space that is much bigger than WorldCat, bigger than all the combined library catalogs, and one we all increasingly take for granted as an always-present information space. Interoperability between the library space and these other
market spaces must enhance the discovery and delivery of resources. The value of library metadata will be enhanced when it is a common part of the shared, global information ocean millions of people swim in every day.

For 32 years OCLC has provided tools designed to produce an electronic version of a written catalog card for inclusion in local library systems. There are now approximately 8,250 governing members of OCLC— institutions that contractually agree to contribute cataloging data to WorldCat and that continue to find shared cataloging to be cost-effective. These governing members have used OCLC cataloging tools to extraordinary effect. We think it’s time, however, to embrace the Industrial Revolution and leave behind the cottage industry our member libraries and we created and have sustained. We’ve relied on our members to handcraft the bibliographic records contributed to WorldCat because there were no more reliable sources of metadata than the catalogers who had the physical items before them as they cataloged. We’ve devoted hundreds, if not thousands, of person years developing and maintaining sophisticated cataloging tools because we needed catalogers to take the raw materials, work in their own “homes” and return the finished articles. We rely on and are dependent on people in our cottage industry correcting their work, deleting their work, and returning their holdings. But our skilled workers are diminishing in number and the demands for access to content are increasing, and so we must plan for a future for WorldCat where there are fewer and fewer catalogers to contribute high quality metadata. As the responsible steward of WorldCat, concerned about the growth and quality of the database built by generations of catalogers, OCLC is investigating ways to embrace the revolution and industrialize the cataloging workflow.

We can now work directly with authors, publishers and materials vendors in order to capture metadata and work with them to create high quality cataloging records earlier in the publication cycle, thus driving down the total costs of cataloging. This enhances the patron experience with the library catalog, and it provides libraries with new opportunities to lower their cataloging costs. Libraries can automatically receive catalog records at the same time they order materials, thus speeding materials into circulation, again improving service levels to patrons. These services, however, are really about building a better mousetrap, not about rethinking the whole process of cataloging.

OCLC’s Office of Research is working on a set of experimental services that would change the cataloging process by harvesting metadata automatically by pulling metadata from different repositories (library catalogs, institutional repositories, publishers, content creators). The mechanics of harvesting are becoming routine and well understood, and it is not a stretch at all to imagine for some types of resources cutting out the humans in the exporting and importing of metadata processes. OCLC software could periodically scan repositories of metadata and retrieve new and changed items. This metadata will often not have been created within a framework of consistent practice; approaches to subjects or names will be different for example, and this introduces the interesting challenge of effectively fusing and recombining metadata dynamically so that it is useful to diverse communities.

The library community and OCLC also need to figure out how to make our existing investments in structured metadata work harder by mining, developing, and exposing relationships across documents and other resources. The people using search services like library catalogs and Google are not engaged in searching, they are engaged in finding. As libraries compete with the web and with bookstores, and as libraries expand their collections to include electronic resources and digital archives that they either own or just point to, it is crucial that we collectively find
ways to drive down the costs of technical services in favor of improving the library patron experience. Cooperation will continue to be a key success factor, but the universe of cooperation must expand beyond libraries to include all of the organizations that are in the supply chain for information resources.

Libraries must define their role in this process: to focus on being the transparent middle layer, assembling content in a seamless way, invisible to the users of their services. Industrialization does not mean only mechanizing processes and producing goods and services more efficiently. It also means becoming ubiquitous, part of the infrastructure, so integral that the users of your services and goods cannot imagine life without what you produce and provide. It is true that many librarians and library staff could not imagine their work lives without WorldCat but if the WorldCat “factory” closed down next week, would anyone but the “factory workers” miss it? As large and ubiquitous as WorldCat seems to many, the records are the equivalent of fine furniture: the hands of skilled craftspeople make every one.

When we buy furniture we have choices. Our choices are dictated by taste, price and availability. We can buy mass-produced furniture, or we could buy custom-made. It’s likely most of us have mass-produced furniture that we’re quite satisfied with. Few of us could afford both the cost and the wait for a houseful of custom-made furniture. Before mass-production, just as now, very few people could afford custom-built furniture. Those who couldn’t, owned very little furniture and what there was might be poorly made. Mass-production of furniture allows anyone, not just the wealthy, to furnish whole houses. Mass-produced furniture is good enough for most people. The library world must find a way to mass-produce “good enough” metadata that is available to millions of people. Continuing the cataloging cottage industry guarantees the market for our handcrafted, expensive products will be the information wealthy. We must learn from successful industrialization and mass-produce good quality metadata that will furnish the empty rooms of the millions of people living in houses built by Google.

The WorldCat of today is a late 20th century knowledge map. It is essentially an electronic version of the card catalog, which itself represented the apex of early 20th century knowledge mapping. Now, we are on the verge of creating a 21st century knowledge map, one that builds on technologies that were only dreamed of when Fred Kilgour hooked up the first terminal to WorldCat 32 years ago at the beginning of the second Revolution in Cataloging. It is time to build on the knowledge and skills of the past 32 years and truly industrialize the workflow.

__History teaches us that the great revolutions aren’t started by people who are utterly down and out, without hope and vision. They take place when people begin to live a little better—and when they see how much yet remains to be achieved.__

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**HUBERT H. HUMPHREY**
(1911 to 1978)
U.S. Democratic politician, vice president.
Speech, April 2, 1966, Durham, N.C.

**References**


I am Cataloger—Hear Me Roar

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When I was first asked to write an article on cataloging and automation, I questioned whether this was to be researched or an opinion piece. I was invited to write my passion—and so I shall. And my passion is cataloging and automation together! I see no dichotomy between them. Cataloging is a craft, an art, and a science. Automation does not destroy that craft, that art, that science; in fact, automation can allow us to create much better records, share the workload, and produce better databases and OPACS. What on earth am I talking about? I’ll get to that shortly. First, however, I wish to discuss the topic of automation in libraries, as it is often perceived.

I have heard library staff say that automation has caused nothing but trouble for us and our catalogs, for we import incomplete or just plain bad bibliographic records into our local systems. Most recently, I read an article decrying the addition of vendor records to the OCLC and RLIN databases. Those who decry these additions cite detriments to the staff, to the local OPAC, and to patron expectations. I say wait! Automation need not produce such an outcome! When a library decides to join a bibliographic utility, it must devote some time to developing a system for the efficient use of that utility’s services; the library will probably revamp its cataloging procedures. It is necessary to create a small committee to study the bibliographic records the library takes from the utility. The committee must decide what criteria define an acceptable record and create a list of libraries whose records meet those criteria. Once that process is complete, those records can be imported into the local system with little or no checking. The materials with records that do not meet the criteria can be cataloged by a higher-level paraprofessional staff and brought up to standard. Finally, those materials with either no copy or copy so bad that it is almost useless are given to the original cataloging staff—paraprofessionals and librarians—for cataloging. This system does presume a system of well-defined roles and job descriptions, but it works—and it works well. When fully implemented this, or a like system, takes full advantage of automation but not to the detriment of staff, the local OPAC, or patron expectations.

It is clear that I love cataloging and technology and I make no apology. When writing an opinion piece, one writes from personal experience; I’ve been a library technician engaged in the rapid cataloging process and a copy cataloger engaged in upgrading records and bringing them to AACR2 standard. I am now a paraprofessional, original cataloger, and my love of cataloging and automation has not diminished; it grows stronger by the day.

The University of Washington is an OCLC library, and OCLC’s new system, Connexion™, is everything that a cataloger could want. Connexion™ offers us the ability to create bibliographic records that can be manipulated whenever the library deems necessary. It offers the ability to take a MARC record for a Web site and display it in Dublin Core. The Dublin Core can then be copied and inserted into the Web site itself, thereby enhancing a searcher’s ability to find it. This gives the best of both the MARC and Dublin Core worlds, and provides a much-needed service to library patrons. When creating the bibliographic record, one can use Connexion™’s best features to their fullest advantage. Connexion™ has a system to link the headings in the record to the authority file records. Once that link is made, the headings will be updated automatically whenever they change in the authority file. If one’s library subscribes to OCLC’s bibliographic notification service, it will receive a new bibliographic record for the local OPAC. If the library subscribes to an authority service, it is likely that there will be notice of the change and perhaps a corrected authority record in an update provided by the vendor. The change will most certainly be caught.
whenever the library sends a record containing the heading to the vendor for an authority wash.

Because the University is an OCLC library, I have no real sense of what features RLG offers as cataloging tools. However, after wandering through the RLG Web site, I see that technological changes are on the horizon there; the information given concerning changes to its cataloging service and the outsourcing available to RLG libraries, signals improved cataloging ability and streamlined processing. I have no doubt that RLG participants will find the most efficient ways to use their new tools to their institutions’ best advantage.

I would like to end this discussion with one final thought. Automation in itself is not the holy grail of libraries—the prize to be sought at all costs. It will never replace catalogers—someone, somewhere has to create those bibliographic records that populate OCLC, RLIN, and other databases. Used properly automation is a tool—a practical way of responding to cataloging needs, to patron needs and expectations, and to the circumstances that mold our library world. I believe that with it we can create databases that will be correct now and in the future. Yes, it will take an investment of time and patience; but if each of us does a little, we render moot the argument that automation leads to the degradation of the catalog, and those who follow us will never have to worry that the records they import into those catalogs of the future will be incomplete or just plain bad. But then again, I am cataloger—hear me roar!

References

*TLC half-page ad to go here*
Very few catalogers may think of their work as a stage, but in these times of media mania, I think catalogers have a stage from which to perform. How do we create experience for our users? The possibilities are endless.

For two centuries, our catalogs thrived in a conservative non-competitive user environment. Never in our history have we concerned ourselves about losing out to our competition. We generated catalogs believing in the mantra: “make them and they will come.” This is no longer true today. In a pre-test I give my students in Beginning Nursing Informatics, I ask the question, “In searching for information, which source do you search first?” The overwhelming answer is always: “google.com or the Internet.” It is clear that we can no longer ignore the competitive reality that surrounds us.

We have always regarded our catalogs as the center of our universe; today that center is fast becoming a gaping hole. We need to do something fast to recapture our position of relevance in the digital age. Our Internet competition is flagrantly imperfect—everybody knows this. They rampantly lack the “human intelligence so essential in making logical connections that express relationships” (Tillett, 1999), something we have done so well for so long.

So what exactly is wrong with our catalogs? This has generated discussions in the literature. Kristin Antelman discusses very compelling reasons why our catalog is a misfit on the Internet. Roy Tenant concurs that our catalogs are not fluid enough; others argue it’s not easy enough for the “point & click” generation’s need for mindless tools; still others propose it needs to be an all-encompassing tool, providing seamless access to the entire universe of information. I suggest a most obvious reason, one that cuts us out of the competition—our catalogs are not “hip” enough.

The adjective “hip,” “hipper,” or “hepper” is a slang word defined by Webster to mean “keenly aware of or knowledgeable about the latest trends or developments; also to mean “very fashionable or stylish.” I use both meanings to suggest that our catalogs in general fail to exemplify our knowledge of technological trends and developments and are much lacking in what is considered “trendy” and “fashionable” in today’s digital environment. Admittedly, adding elements that spark and sustain curiosity and interest may not be so simple considering that we are trying to hook the attention of a technology suffocated, sophisticated, completely informed information culture. Furthermore, this idea may not sit well with catalogers, who may argue that this is contrary to our mission, much less with our prevailing attitude of subservience to rules and standards of practice. But to sustain the relevance of our catalogs, these need to be responsive to the expectations of a new emerging information culture in the digital age, a culture that gravitates to tools that are not only efficient but also engaging and entertaining.

The profession as a whole and catalogers, in particular, are taking serious measures to make our catalogs more relevant, calling for new standards, new rules, new tools, new partnerships—new ways to make our catalogs as powerful, if not more powerful, than our competition’s. For years, we’ve talked and actually implemented adding value to our catalogs, providing extensions or enrichment to our catalog.
data—elements like tables-of-contents, author or dust jacket information, community information. Lately, we embrace the Web’s hyperlinking function to bring our catalogs closer to our dream of “one-stop-shopping.” Many of our leaders are engaged in profound discussions on global issues of authority control, bibliographic rules and standards that are so important to our viable existence on the Web. There is no question that more developments are brewing to improve access, quality, and bibliographic control. But these do not constitute what makes a catalog “hip” in today’s emotionally motivated environment. I’m not suggesting we add nudity to our catalogs. I’m suggesting elements that engage our clients.

Pine & Gilmore (1999) suggest experience as a new source of added value; that experience engages our clients in a personal way to the point that after we satisfy their immediate need, we leave them with an experience that lingers on and stays with the client long after service is rendered. John Perry Barlow, co-founder of the Electronic Frontier Foundation, couldn’t have put it more succinctly when he said “Information must be experienced” (Albanese, 2002).

Web technology powers a new genre of communication that is interactive, multi-based, multi-faceted, and multi-dimensional, including virtual reality that is capable of bringing about what Pine refers to as “immersive experience” (Pine, 1999). From a rather static beginning, this sounds like an impossible challenge. But it is not if you think of how librarians and system developers are now experimenting with employing new standards and new technology to make our catalogs literally sing. Today we have the technology to make our catalogs become living entities that can walk (through wireless PDAs) and literally talk to our users, capable of making the information-seeking experience engaging and memorable. How do we create experience for our users? The possibilities are endless. But let me put the spotlight on a few elements that I think hook the average Web client.

A Sense of Community
A friend looking for a particular piece of music in CD (he knew so little about) reported about having gone to Amazon.com and found exactly what he was looking for, an outcome he considers “positive experience.” But this is not all. He also received additional information that immediately linked him to the experience of others. “Customers who bought this title also bought the following” is a function of co-location that we have provided in our catalogs all along. So what is different about the way Amazon.com delivers it on the Web? Presentation—for the very same reason food presentation is important to dining. The feature “Customers who bought this title also bought the following” is not just suggesting other similar titles on the same topic of interest, it is also suggestive of instant approval, a positive feedback everyone is looking for—you’re not the only genius who happens to love this music, there are a few others who bought it and bought more of the same. In other words, you are part of an existing community.

The “sense of community” is a very important concept on the Web. Defined as “perceived belonging and perceived mutual interdependence” (McMillan & Chavis, 1986; Sarason, 1974), it is an essential spiritual nutrient for human beings (Albanese, 2002), that promotes a sense of self-esteem and well-being that feed healthy and successful collaborative relationships.

Today, cataloging is not just about passively creating bibliographic records and subject analysis to aid information retrieval; it is also about promoting collaborative relationships among scholars. If our mission is to support intellectual pursuit then providing a convenient way for one scholar to talk to another is core to
Today, cataloging is not just about passively creating bibliographic records and subject analysis to aid information retrieval; it is also about promoting collaborative relationships among scholars.

Our mission. It is a well-documented fact that in the research process, scholars first talk to another scholar before turning to the literature.

**Interactivity**

Have you visited a music Website lately and sat for hours to enjoy a piece of music—in your own time, in your own living room—and then had a chance to rate the song, or write your own review? The "If you like" feature on the Tower Records Website allows you to pick an artist you like, suggests which song to try, then lets you know which album sells the most, while an expert tells you why. Choosing from a panel of experts (instant peer review) is only a mouse click away. You may enjoy a conversation with a contemporary artist or composer himself, or invite another fan into your virtual living room to discuss the piece and have a music critic or two join you in the conversation.

We learn in education that interactivity is a very powerful teaching tool for the very reason that it engages students. Engaging our clients to participate in the process, as in writing and sharing their own impressions of the work and adding these as extensions to our core record, will not only enrich our records but also create a memorable experience for our clients.

Librarians are recognizing the value of interactive digital encounter. Public services librarians in particular are jumping into this much earlier than their cataloging counterparts. A chat-based virtual reference is on its way to becoming the new mode of reference. Those of us who have served at reference desks know how often and how many questions are “catalog-related.” A cataloger’s version of “Questionpoint” or a chat button: ASK A CATALOGER may not be so trivial an idea for very long. As projects like LinkPlus takes off, catalogs will grow into enormous databases where searching has the potential to become as hairy as in today’s searching the Web. Why do you suppose Ask Jeeves and LooksmartLive are thriving on the Net?

**The Human Touch**

Early deliberations on the digital encounter often cited the lack of “human touch” as the biggest challenge in digital communications. Have you followed the animated demo on how to track down your orders on Amazon.com? A pleasant human voice comes on with easy to follow instruction, carefully guiding you through transitions of screens to demonstrate the process—it’s short, sweet and simple. There is no question that “How to search the catalog” using a cataloger’s captivating voice is more fashionable than a static single sheet of instruction.

**Personalization**

Word is out that the Marriott hotels are actively collecting data on their clients, keeping an individual record of customers—their preferences, habits, likes and dislikes—so that the second time the same client checks into a Marriott anywhere in the world he is guaranteed a customized service environment. Knowing who accesses our catalogs, keeping track of their reading habits and preferences will give our catalogs a customized touch. The next time the same patron accesses the catalog (using a human voice) we should be able to address him by his name—“Hi Bruce, have you checked the latest titles by your
favorite author, John Grisham?" Or, "Did you know that the book you reserved is now waiting for you at the checkout counter?" While one can still be "a dog on the Internet," there is a growing need for having an identity on the Web. Perhaps it is the antipathy towards anonymity on the Web that is driving the need for recognition, this or the "desire to set one's self apart from everyone else" (Pace, 2001). "My Library" or "My catalog" could be a step in this direction.

So, then the next question is: who has the time to devote to non-essentials when we don’t even have the time to take care of our backlogs? But I say, this is the 21st century when we can’t and shan’t go at it alone. This is the era of collaboration and the eventual triumph of cataloging industrialization—whether we like it or not. Producing a catalog is no longer as simple as creating a main card and duplicating this to make a set of cards for as many headings as are in the tracing—it is far more complicated than this. There is more to master than ISBD and AACR2R. Our only salvation is to forge partnerships with "experts" in our fields who have the technological know-how to make our catalog walk or talk or sing.

We are at the threshold of a totally new era of cataloging that is characterized by new bold approaches that may be revolutionary or revolting to the traditional cataloger. Just the very idea of cooperative metadata "on the fly" by a vendor, a user, or anybody who has not taken Cataloging 101 gets many of us nervous. Someone said "perfection is the enemy of good." We need to go beyond the perfect record if we are to prevent the imminent decline of our catalogs.

To apply Pine & Gilmore’s analogy that "work is theatre and every business a stage," the catalog is our stage, and catalogers are but a member—albeit an important member—in a stage crew of several who share a common goal of providing our audience with a catalog experience that is not just precise and productive, but also engaging, entertaining and memorable.

**NOTE:** The author would very much welcome imaginative ideas and insights into making our catalogs “trendy and fashionable.” Please direct your comments and ideas to nwurang@dwebb.llu.edu

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Training—the Missing Step in the Industrialization of Technical Services

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To me, the word “industrialize” conjures up an image of an assembly line in a factory, with workers at their stations using machines (automation) to manufacture a product.

With this image in mind and for the purpose of this article, let us arbitrarily define the word “industrialize” to mean the process of increasing productivity (i.e., production of a product) through:

- the effective use of automation to improve efficiency and standardization;
- the division of labor (focusing on and raising the level of our core competencies and finding others to manage needs outside those competencies);
- streamlining processes to increase workflow;
- implementing quality control and accountability to maintain demand for the end product

Can we apply this definition and these steps to the products of a technical services department of a library? Perhaps we should first establish what the products of a technical services department are supposed to be.

It is generally accepted that one of the primary purposes of a library is to collect resources to satisfy the educational, informational and recreational needs of its patrons. For patrons to find the resources in a library’s collection, those resources must be organized and made accessible. In this scenario, therefore, accessible resources are one of the principal products of a library.

To produce this product—accessible resources, a typical library will integrate the following steps into its ‘assembly line’:

1. Choose the resources to be added to the collection (Collection Development);
2. Acquire the resources (Acquisitions);
3. Process the resources (Processing);
4. Provide bibliographic information about the resources for the library’s catalog so that patrons can find the resources, especially from off-site locations (Cataloging);
5. Make the resources available (shelve them; mount them on systems; etc.)
6. Check the physical resources out and (hopefully) back in again (if appropriate) (Circulation);
7. Provide support services to help patrons find resources (Access Services)
8. Arrange for resources to be borrowed from and loaned to other libraries (ILL);
9. Maintain automated systems to support all of the above functions (Systems)

Step 4—providing bibliographic information about the resources is one of the key steps in making resources accessible to users. Library collections are too large and often too physically distant for users to scan shelves to find what they need. A library catalog provides specific information about the resources in a library’s collection. Instead of having to hunt through shelves or databases of resources, users can search a catalog of descriptions of the resources and then decide from these descriptions whether or not the actual items might meet their needs.

Consequently, accessible resources are one of the principle products of a library; construction and maintenance of an effective catalog (sometimes known as ‘cataloging’) is an essential component in producing accessible resources; the library catalog is the primary product of a technical services department.

Industrializing cataloging, then, is the focus of this article. Let us see how our list of steps can be applied to the process of cataloging resources to make them accessible to users.
The effective use of automation should allow us to provide more and better cataloging, more efficiently, and with greater cost savings, all in one neat package ("better, faster, cheaper"). However, I contend that the key word here is 'effective'. Business and manufacturing companies would soon be out of business if they tried to get by with untrained staff 'doing their best' to produce a product using unfamiliar tools and with no training. So why do we seem to think that catalogers can do a good job of cataloging while struggling under that handicap? It is true that many libraries make great efforts to provide the necessary tools and the training on how to use them. However there are too many libraries that 'cannot afford' to hire trained staff or train the staff they hire. Yet those libraries are expected to partner with other libraries and include their cataloging records in union or virtual catalogs and have those records 'play well with others'. More automation and better tools are not going to help if the users of those tools do not have the proper training in the fundamentals of their craft to allow them to use the tools effectively.

If we are to have any hope of increasing our cataloging productivity, we must focus on our core competencies, the skill sets that we need in order to produce our product—a catalog to make the library's resources accessible. Sloppy manufacturing will not produce a product that sells, nor will 'doing the best we can'. Rules and standards are vital to the production of a useful catalog to make our resources accessible, if those resources are to be accessible beyond the limited boundaries of our own physical collections. When our only concern was our own patron who walked in our own door and walked to our own shelves to find our own resources, we hardly had to do much to make our resources available for that patron. These days, however, 'our patrons' are dialing in from home or interlibrary-loaning from across town, across the state, across the country, and across the world. We must have consistent bibliographic information made available by the steadfast application of rules and standards if we are to provide our products to those patrons.

Finding others to manage our needs outside our competencies can help us to increase productivity. Outsourcing the cataloging of a collection of resources in a language with which we are not familiar, is a better alternative than letting that collection sit on the back shelves, inaccessible for years. Batchloading files of MARC records for an opening day collection, or an aggregator set of electronic journals, or a collection of ebooks may be the only way that a new library can be opened on time, or the ejournals or ebooks can be made available. However, we still need trained staff in our libraries to check the work done by others and load the files of outsourced records correctly so that they will not conflict with our own records.

Streamlining our processes can, undoubtedly, boost our workflow. Time and motion studies, for example, might show us where we have log jams of unnecessary work carried over from when we automated our manual processes. There are undoubtedly still ways that we can simplify and improve our procedures. However, we must beware of oversimplification. There are some who do not see the big picture and do not understand the complexity of what we are trying to do. They shortsightedly demand that we somehow "make cataloging easier." The only problem with this particular demand is that the end product will not be what our customers are demanding—accessible resources. The resources will be on a shelf or in a system, but finding those resources will be a matter of hit or miss, making those resources, in effect, inaccessible.

This brings us to the last step on our industrialization list—quality control to maintain demand for the end product of accessible resources. What is the point of making more, cheaper records more quickly if those records are not good enough to function properly in a library automation system to make the resources accessible?
If you purchase a file of records for ebooks, and those records contain LCCN that are duplicates of LCCN that are already present in records in your database for the print versions of those works, what will happen to your ebook records when you load them to your library automation system? In many systems the ebook records will match the print records on the duplicate LCCN and one of the matching records will be lost. Quality control before loading will prevent a huge mess (especially if your system is set to overlay existing records with matching incoming records). But you must have the trained staff to know how to do that quality control.

If cataloging staff does not know that fixed field codes in cataloging records in the MARC format are useful, then the MARC records that they produce will be missing the kind of information that allows a patron to narrow a search by language or material type or date of publication. If they do not know about indicators in MARC records, then fields in the records may be unsearchable or invisible or strangely labeled. If they do not know how to assign subject headings, then subject access to your resources will be lost. If they do not know how to do authority control on headings in records, then consistency in headings will be lost, making it difficult for patrons to find resources by known names and thus impeding access to the resources. Quality control on cataloging records will reveal all of these problems, but you must have trained staff to do that quality control.

Every administrator dreams of the day when none of their staff will have to know how to make catalog records from scratch because someone else, somewhere else will have already made a record for every resource in the world. Unfortunately, this is not the reality for most libraries, especially those that collect any kind of local material. In addition, it is folly to assume that all copied records are perfect. In fact, although I have no solid statistics to offer, all reports that I hear from the field indicate that the quality of the records available for copying is getting worse instead of better. Is it possible that those other libraries out there, doing the work that you don’t want to do to create the original records that you want to copy are struggling with lack of training also? It is a sobering thought.

**Conclusion**

Just as it is for businesses in the ‘real world’, industrializing the workflow in technical services seems to be the only way that we can hope to keep up with the demand for accessible resources to meet the informational, etc. needs of our patrons. However, without adequate training, there is no point in pumping money into new technology or outsourcing, or even into trying to streamline our processes. Without training in our core competencies, library staff cannot know the cataloging rules and MARC standards that are needed to make consistent records for our library databases. Without training in the use of new technologies, staff does not know how to use those technologies effectively. Without training in the concepts of MARC databases as well as MARC records, catalogers and/or systems staff cannot know how to do quality control on the records and databases.

Collecting library resources and getting them organized and made accessible to patrons is a complicated and many-layered process. Knowing how to accomplish this procedure is not intuitive, it must be learned. It cannot be learned by reading manuals on one’s own or by trial and error because there are too many layers to the process, all of which must be pulled together to produce the end product. I therefore argue that the most important element in the industrialization of the workflow in technical services, and the one that is most often missing, is training in the effective use of the many tools that must be utilized in order to produce the principal end product of technical services—an effective catalog to make resources accessible for the use of library patrons.
An Exchange on:
Life with the USA PATRIOT Act

To the OLAQ Editors:

The OLA Quarterly Winter 2002 issue contained an article by Robert Truman, Life With the USA PATRIOT Act.

Truman wrote: Since the first of this year, law enforcement authorities seeking information on 46 different patrons have approached 24 libraries in Oregon. Maybe. Actually, no one knows. Or at least, those who do aren’t telling … The FBI refuses to share.

Not true. The FBI is telling. And they say the number is zero. It turns out that Truman made the numbers up, just to “catch the eye.”

Perhaps you aren’t aware of this, Fred, but if not, here’s how we learned about it: On February 2, 2003 the Ashland Friends of the Library sponsored a panel discussion about the USA PATRIOT Act. One of the panelists was Charles W. Mathews, Special Agent in Charge of the FBI for all of Oregon.

The moderator who introduced the panelists quoted from Truman’s OLA Quarterly article. The moderator realized that there must be a “fudge factor” in the figures that Truman included in the article, but thought that surely if Truman used numbers like 46 patrons and 24 libraries, he must have had some reason to think some sizeable number of Oregon libraries had been approached by the FBI.

Naturally the audience of nearly 200 was pretty upset that the FBI was poking into so many library records. But then Agent Mathews said they aren’t. The FBI has the authority to ask for library records, if they get a court order, but they haven’t done so at all in Oregon since the USA PATRIOT Act was passed more than a year ago. And, he added, he ought to know, as the FBI agent in charge.

So, one of our library trustees contacted Truman and asked him where he’d obtained the numbers he used in his article.

The following reprints correspondence between Robert Truman and Cohn Swales:

Mr. Truman,

In your article that appeared recently in the OLA Quarterly you say “Since the first of this year, law enforcement authorities seeking information on 46 different patrons have approached 24 libraries in Oregon. Maybe. Actually, no one knows. Or at least those who do aren’t telling …”

Can I assume that this 46/24 figures that you quote are pure speculation or do you have any evidence to support your claim. Have you any idea if, and how many, such searches have taken place in Oregon or Nationwide libraries?

Thanks.

Cohn Swales
Jackson County Library
Advisory Committee

Robert Truman responds:

Mr. Swales, your assumption is right on—the number was purely made up to catch the eye, all towards making the point that we have no idea if and how many of these requests have been made by law enforcement. My apologies for any confusion.

The number truly was picked out of a hat. I know of no hard numbers that would even permit a solid educated guess of the number of searches of Oregon libraries since the PATRIOT Act. The only useful numbers are from the survey cited in my article. I understand that the survey has been updated, but have not had the opportunity to look at the numbers. Even so, I know that the authors of the updated survey acknowledge that their results may well under-represent the reality, as the various gag orders created by the PATRIOT Act may keep libraries from reporting even general statistics on searches performed.

If you find any better estimates for Oregon please do let me know.
Ronnie Lee Budge also comments:

Fred, those of us here at the Jackson County library who know about it are appalled that Truman would use totally false, made up, unverified data in his article. And I feel that his e-mail response shows a cavalier attitude towards a serious situation.

Those seeking to have a rational discussion about the USA PATRIOT Act will have a harder time of it when people believe there’s a massive investigation of library records underway now. Worse still, anyone who is attempting to educate the public about the dangers of the USA PATRIOT Act and who uses the figures from the OLA Quarterly, may have their credibility and arguments destroyed when the actual number of FBI requests (zero) is stated. The moderator of our panel discussion was embarrassed to have repeated a falsehood and it will be most unfortunate if this happens again.

I feel strongly that OLA needs to publish a retraction of the numbers quoted in Truman’s article, at a minimum. There may be other actions that would be appropriate in addition.

If you want to contact Special Agent Mathews at the FBI to verify that the correct number of inquiries is zero, his phone number is 503-552-5200, or e-mail him at: cmathews.portland@FBI.gov.

Ronnie Lee Budge
Jackson County Library Director

Fred Reenstjerna replies:

The ghost of Arthur Sylvester has reared its ugly head in the pages of the Oregon Library Association Quarterly. For those readers too young to remember, Arthur Sylvester was “a one-time Pentagon spokesman [who] became briefly famous in 1962 for saying the government could indeed lie to save the country.” (quoted from www.govexec.com/dailyfed/0302/030502db.htm). I remember the outrage I felt when I heard that report so many decades ago. Government was a fundamental social institution, whose primary purpose was to serve the cause of truth in our society. If government were not truthful, then what institutions could indeed be trusted? The following decade-plus was to test sorely every thread in our social fabric in a Diogenes-like search for truth, and indeed many institutions were found wanting when weighed in the balance. That still did not excuse Arthur Sylvester.

Fast-forward to the next century, sans the moving sidewalks we were promised ca. 1962, and Robert Truman justifies his data by writing that “—the number was purely made up to catch the eye.” I am sorry that we have a candidate for the Arthur Sylvester Award, but I am not ashamed or embarrassed that OLAQ published a specious statistic from Robert Truman, and I will tell you some reasons why.

First, the scholarly journal exists as it has since Blaise Pascal originated it in the 1600s as a way to share research findings among practitioners of a common knowledge base. OLAQ does not have the refereeing capabilities of the New England Journal of Medicine: we rely on a basic trust between writer and reader as practitioners together of our discipline (or profession or vocation) called librarianship. We librarians defend the free exchange of information, and we have an implied presumption of truth in that exchange. For a writer to violate the trust of OLAQ’s readership is their shame, not ours. Truman’s defense of fabricating a statistic “to catch the eye” perhaps indicates that he was motivated by the zeal of the True Believer in a Cause, but there is a profound difference between the Truth and the True Believer. Truman’s defense sounds like the temporizing “We had to destroy this village in order to save it” rationale that followed Arthur Sylvester by only a few short but bloody years.
Second, and this is more important, the above correspondence is a testimony to the unfailing abilities of Oregon librarians to do their job. Librarianship is about finding the Truth, researching the answers and pursuing leads wherever they take us to get our customers the best quality information available. I know the relativism of Deconstructionist collaborators has whined across the past decade, replacing principle with irony. But irony died in the crash of the Twin Towers, after it had been gravely wounded by the Taliban’s destruction of the Bamiyan Buddhas some months earlier. This is not the time to trifle with truth, or with the minds of people, in an ironic detachment. This is the time to believe in principles and to live those principles. A librarian who is not committed to the quest for fair and objective information, unadorned with “eye-catching” mis-information, is indeed missing the point of his or her profession.

It is the thorough research of Jackson County library staff that is the exciting development in all this mess: that is the newsworthy event to be reported to and celebrated by our profession. We are indeed the watchers on the walls of Freedom, and as the world darkens into a global night of secrecy and intimidation, let the word go forth to all residents of this planet that their right to information—free, unadorned, unmanipulated information, sometimes called Truth—remains strong and healthy in Oregon, because of the vigilance of our librarians.

Frederick R. Reenstjerna
M.L.S., M.Ad., Ed.D.
Chair, Publications Committee
Oregon Library Association

Anna Grzeszkiewicz responds:

As the editor of the issue where that article appears, my first response to information that false statistics were presented in Mr. Truman’s article was shock, for I consider Mr. Truman a reputable source and I recalled that his article was thoroughly referenced.

I just reread the controversial passage and it states: “Since the first of this year, law enforcement authorities seeking information on 46 different patrons have approached 24 libraries in Oregon. Maybe.” The operative word there is MAYBE and the next paragraph states: “Actually, no one knows. Or at least, those who do aren’t telling.” The sentence in question is presented as a scenario which acts as a lead-in to the point he makes in the subsequent paragraph.

If you compare his “statistics” on Oregon and his national statistical information in a later paragraph, you’ll notice they are presented quite differently: “A survey (emphasis mine) of U.S. libraries estimated that approximately 200 libraries had been contacted by law enforcement for patron information in the three months following passage of the Act.” This statement is followed by two references, something that is lacking for the Oregon statement. While it is possible I could overlook the lack of a needed reference, that would have been a blatant one.

In retrospect, it is easy to see how that scenario could be misconstrued as being factual. While it is unfortunate that the Oregon numbers were quoted as if they were facts, to suppose that Mr. Truman was trying to misrepresent anything is nonsense. The most he can be accused of is writing a paragraph that was open to being misconstrued; and I, as editor, of overlooking that possibility.

While I can’t vouch for the veracity of Mr. Truman’s referenced statements, (not having checked all his citations), I certainly would not question his integrity based on the problems caused by a misconstrued sentence.

Perhaps there’s a lesson in this to all of us about being more careful when quoting information out of context.

Anna Grzeszkiewicz
Guest Editor

## Executive Board

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