Technical services and user service improvement

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Abstract

Purpose – From the cataloging librarians' point of view, this paper aims to present how technical services, especially the cataloging department, can play important roles in the improvement of user services.

Design/methodology/approach – The paper examines the practices of the University of Oklahoma Libraries.

Findings – The paper identifies several aspects in which technical services can enhance the quality of user services, especially in the cataloging department. A library's online catalog becomes the first point of access to the library's information resources. Its quality can be improved and enriched in many ways to raise users' satisfaction. Aside from the improvement in technical aspects, efforts should also be made to promote collaboration between technical and public services so as to ensure efficient processing of materials and to meet the needs of library users.

Originality/value – The value of the paper is in showing that the quality of an online catalog and the cooperation between public and technical services are two of the key factors in achieving high quality of user services.

Keywords Online catalogues, Library users, Technology led strategy

Paper type General review

Introduction

How to improve the quality of user services in the twenty-first century is an important issue faced by all libraries throughout the world (see, e.g. Shapiro and Long, 1994; Shin and Kim, 2002). Traditionally, the term "user services" refers to the functions of, and interactions within, library public services; its definition usually does not include the concept of technical services (Groves *et al.*, 2004). As information technology, especially the online catalog, plays an increasingly bigger role in library user services, however, the traditional boundary between public and technical services, in terms of the role in user services, has become less clear. "User services" are no longer an issue only related to public services; their quality is affected by technical services as well (Behrend, 2000; Madarash-Hill and Hill, 2005; Matthews, 2001; Sabini, 2004). It has even been claimed that "Technical Services = User Services" (Groves *et al.*, 2004).

The online catalog is capable of providing wide-ranging information service since it has potentially infinite linking power that can direct and connect library users to forever growing electronic resources, as well as physical collections. With the globalization of the online catalog, the catalog is no longer just a tool, as it used to be, when it meant stacks of static cards stored in separate little drawers; it has become a dynamic gateway to increasingly expanding information resources through constantly extending networks of hyperlinks. It is still important, as ever before, for us cataloging librarians to adhere to prescribed standards and rules when working on bibliographic

records, but we also have to adopt a user-centered and user-friendly approach to assembling, maintaining, and enhancing the online catalog according to library users' needs.

There are various ways technical services, especially the cataloging department, can contribute to raising library users' satisfaction through, and hence add information value to, the online catalog. In what follows, we present some of the aspects in which the technical services can enhance the quality of user services, especially in the cataloging department, as practiced at the University of Oklahoma Libraries. We hope to show how technical services, especially the cataloging department, can play an important role in the improvement of user services.

Enhancing bibliographic records
The online catalog makes enhancement possible as is needed to maximize the results of its users' information searches. Enhanced MARC records increase both precision and recall (Behrend, 2000; Madarash-Hill and Hill, 2004, 2005; Matthews, 2001; Sabini, 2004; Wells, 2002). Here are some of the ways in which bibliographic enhancement has been achieved at the University of Oklahoma Libraries.

Contents notes
As reported by some research, certain types of materials have been under-used due to inadequate subject or thematic title access (Madarash-Hill and Hill, 2004). Adding contents notes to the online catalog is one method of increasing the usability of these materials by increasing access points to them (Lam, 2000; Madarash-Hill and Hill, 2004, 2005; Matthews, 2001). This method is especially valuable when applied to cataloging anthologies, collected works, conference proceedings, etc., whose titles lack specific subject or thematic information.

The University of Oklahoma Libraries hold a copy of *The Works of John Day* published in 1881 that contains several individual works of John Day published in the early seventeenth century, such as "Humor out of breath" (1608) and "The travailes of three English brothers" (1607). The libraries, however, do not hold these individual titles in print format. With this title alone, the real meaningful access point is "John Day" only. The user has to get hold of this book to find out which of his works are included in it. To give users more access points to the book and more detailed information on John Day's works, the following contents notes were added to the record: "Introduction – Peregrinatio scholastica – Notes – The parliament of bees, 1641 – The Ile of Gvis, 1606 – Humour out of breath, 1608 – Law-trickes, 1608 – The travailes of three English brothers, 1607 – The blind-beggar of Bednal-Green 1659". Thus, with keyword search, not only can users get to know the general information about John Day's works, they can also find those valuable individual titles. The meaningful keywords are increased considerably. Libraries can decide if they want to further enhance the bibliographic records by tracing the title or chapter entries in a particular book through enhanced contents notes or added title entries so that these title or chapter entries in the book can also be found by title search. With *The Works of John Day* (1881), for instance, "added title entries" in the bibliographic record should make each individual title in the book searchable through "title search". Without the

contents notes or added title entries, a user would not know those particular resources are available.

Contents notes and added author/title entries are also very important in cataloging anthologies, conference proceedings, etc. Anthologies usually include works of multiple authors in a single volume. It is possible that the added entry is the only link to an obscure work of an author. Conference proceedings are often published with general titles, such as "Charleston Conference proceedings, 2004", which only gives users very general information. By adding the contents notes to the records, the cataloging department is able to provide users with more specific and detailed information through online catalog. The search results obtained by users will be more precise and useful.

Table of contents can also be purchased from the commercial vendors, such as Blackwell's Book Services, Syndetic Solutions, etc. (Madarash-Hill and Hill, 2004, 2005). If libraries have the budget, contracting with such a service will provide a quick and efficient way to enhance online bibliographic records.

URL links

Another way to enhance the online catalog is to provide URL links to abstracts, full-text periodical articles, electronic books and web sites. Nowadays, the integration of electronic resources with traditional library resources has become a norm of libraries. With the popularization of computer technology and high-speed internet, electronic resources have become preferred information sources for many library users. Therefore, the management of electronic resources, especially e-journals, is a challenge confronting libraries.

Many e-journals are available through several different aggregated databases, but the coverage date and content availability may differ. The issue of limiting access to certain groups of users as permitted by e-journal licensing agreements makes the situation even more complicated (Meagher and Brown, 2004). Some libraries choose to use an "A to Z list" on their library web site to direct users to those e-journal titles. An "A to Z list" is a web list containing all e-journal titles subscribed by the library in alphabetical order. It is relatively simple to use, but can become cumbersome as the library's e-journal holdings continue to grow. Other libraries provide bibliographic records in their online catalog with URL links to the specific journals or databases. This "one record per journal title" method is more efficient, ensures that users find the right journal, and enhances usage of e-journals. However, maintenance of the records requires enormous effort and is often costly. There are libraries that utilize both methods. The University of Oklahoma Libraries realize that providing seamless access to the e-journals by adding URL links to the online catalog is a vital responsibility of the cataloging department. Besides the "A to Z list", the record for an individual e-journal title with URL links is provided in our online catalog. Although keeping URL links up to date is very time-consuming and labor-intensive, it is nevertheless essential to the improvement of user services.

Several electronic resource management systems are available in today's market, such as Serials Solution, Ex Libris' Verde, Innovative Interfaces' Electronic Resource Management, etc. These systems are designed to help libraries streamline the

management of data and metadata about electronic resources. The University of Oklahoma Libraries have chosen Serials Solution to manage our e-journals. MARC records provided by the vendor include detailed coverage information, such as "Full text available from XXX: 01/01/1993 to 3 month ago", and records are updated periodically to reflect changes. The serials cataloging librarian, in cooperation with the Acquisitions Department and Collection Development, works diligently to update our institution profile to include new acquisitions, as well as subscription changes. Using different scripts in the URL links, users can be directed to different log-in authentications or log-in instructions, and to different coverage periods.

Let us look at one e-journal title subscribed by our library as an example. We have access to *Science (Weekly: Online)* through six aggregated databases. Each database has its own coverage date and restriction. The record for this title lists all six URL links to provide users with details and all choices. The users can click on those links to view the abstracts, the table of contents or the full texts according to different users' status. Besides the e-journals, the University of Oklahoma Libraries also subscribe to an array of e-books, such as titles from NetLibrary, Gale Virtual Reference Library, SPIE Digital Library, etc. All e-books are cataloged in the online catalog with a URL link to the specific electronic resource. Some publishers, most likely with publications from scientific societies and government publications, provide free electronic access to print subscriptions. In this case, the URL link is attached to the record. Adding a URL link to the electronic text enables remote or simultaneous access to the resource (Madarash-Hill and Hill, 2004).

The world wide web is a rich source of free information. At the University of Oklahoma Libraries, reference librarians/bibliographers select web sites that are deemed useful, and the cataloging librarian would catalog the web sites with full subject access and URL links, and integrate the electronic resources into the online catalog. For example, "Birds of Oklahoma" is a MARC record for a web site. In this record, besides the regular information about the title, publisher, publication date, etc., the URL links to the introduction, text, bibliography, index and errata are listed separately. The users can view different parts of the PDF file easily by clicking on different links.

Access to electronic resources, be it e-journals, e-books, or web sites, is dependent on the accuracy of the URL link. It is vital that cataloging staff check the hyperlinks to make sure they are functioning properly, and broken links need to be updated immediately. URL maintenance can be time-consuming if done manually. URL checking software is included in some integrated library systems, or it can be purchased commercially.

Subject headings

Theses and dissertations are a unique and important type of research literature. Often, they are the first peer-reviewed writings of new researchers and represent the initial appearance of fresh ideas and discoveries in many disciplines. However, their original copies are held only by the library of the institution where they are written. Finding them on a given topic or subject can be challenging (Sapon-White and Hansbrough, 1998).

Assigning Library of Congress (LC) subject headings to theses and dissertations is one way to help users locate this type of literature and another method of enhancing the online catalog. Many academic libraries have abandoned the assignment of subject headings to their institutions' local theses and dissertations mainly because of the time and effort involved. Some libraries prefer to use author-supplied subject terms instead. What impact these decisions had on the dissertation use is examined and evaluated by Sapon-White and Hansbrough (1998). Their findings show that dissertations with LC subject headings are much more likely to circulate than titles without such subject headings whereas author-supplied subject terms fail to achieve such effect. Subject searches considerably increase access to dissertations, complementing known-author and known-title searches.

The University of Oklahoma Libraries make a conscientious effort to assign LC subject headings to all locally produced theses and dissertations after consulting with representatives from the Graduate College, faculty and graduate students. It is believed that theses and dissertations, which constitute an invaluable resource in the academic world, should be cataloged fully and integrated into the online catalog like any other library resources. Applying LC subject headings to them increases the use of this type of research literature, especially of those whose titles are not subject-descriptive. For example, "Half-told tales" is the title of one thesis. From the title alone, it is very difficult for users to know what the subject of this thesis is. The subject heading assigned, "Hawthorne, Nathaniel, 1804-1864", directs users concerned to this thesis.

Authority control

Authority control is typically defined as the process of maintaining consistency in access points in a catalog. In practice, authority control is the process of determining all possible manifestations of the entity for an access point, choosing the preferred manifestation, formulating the heading, linking the used with the unused, and finally documenting the whole process (Behrend, 2000; Jeng, 2002). Authority control is an important component of cataloging, greatly enhancing the identifying and collocating functions of the library's catalog (Behrend, 2000; Wolverton, 2005). The success a user experiences while searching a library's catalog is directly correlated with the number of cross-references provided by authority control, which libraries use to improve the success rate experienced by their users searching the OPAC (Matthews, 2001). Many components of authority records do not display to the public, but the results of all that work are on display in the use of the OPAC (Wells, 2002).

Although authority work can be costly and labor intensive, the University of Oklahoma Libraries highly value the authority control practice. The Authority Control Unit uses reports generated by our integrated library system (ILS) to resolve the problems of unauthorized and dropped headings. The staff diligently goes through the reports to verify the headings, selecting the correct authority records to add to our authority database, updating invalid headings on the bibliographic records, and deleting blind references. The Library of Congress Subject Headings Weekly List is used to identify changes in subject headings. The changes are checked against the database, and the invalid headings are either changed manually by the staff or globally by the ILS to ensure high quality of the online catalog. For instance, there are several

works written by or about the famous Chinese writer Lu Xun (pseudonym) in our collection. Since they were cataloged in the different periods and according to different Chinese Romanization Systems used at the time, the name Lu Xun was transcribed in different forms, such as "Lu Shün", "Lou Siun" or "Loo-sin". There are also some works cataloged under his real name "Zhou, Shuren" with various forms. Without authority control, users using the search terms or spellings other than the authorized usage to search for materials would not be able to find all his works owned by our libraries. They could only find those with the name exactly matching what the users typed in the search field. Now in our system, the authority record for "Lu Xun" lists all 37 different forms used for his works under the authorized name "Lu, Xun, 1881-1936". Through the cross-references provided by this authority record, users can search under any form of the name listed in the record and be directed to all his works.

Collaboration between public and technical services

User services can be improved not only by either public or technical services, but also by the collaboration between public and technical services (Ho, 2005). As an academic library, meeting the needs of teaching and research is the mission of both public and technical services and the focus of collection development. Collaboration between technical services and public services is extremely important in improving user services. Public services personnel are the frontline people who are in direct contact with users. They are at the receiving end of complaints and suggestions. When online catalog errors and suggestions for improvements are communicated to technical services, the cataloging department can act on users' reactions and find ways to improve its service.

Database maintenance

Cataloging is detail-oriented work. Although the staff in the cataloging department strives to achieve accuracy in their work, errors are unavoidable. The catalog maintenance unit in the cataloging department is responsible for correcting errors in the online catalog as they are reported. To allow users or public services staff to comment on the online catalog, the paper or online version of an error report/suggestion form is provided. Lists of commonly misspelled words are also used periodically to detect typographical errors to ensure accuracy of the online catalog. The unit is also responsible for updating all changes to reflect the holding information and correct location when materials are lost, withdrawn, or transferred from one location to another.

Cataloging on demand

The cataloging department at the University of Oklahoma Libraries works closely with the reference department and branch libraries to provide rush-cataloging and reclassification on demand services. Although the cataloging department processes materials efficiently, titles are cataloged in queue as they are received. If users find titles in the online catalog which have been ordered, received, but not cataloged, they can fill out a rush request form at the reference desk. The reference staff then notifies us to have the items rush-cataloged. Sometimes, the materials just arrived at the

acquisition department, we would work with the staff in that department to locate them for rush-cataloging. The rush-cataloged materials are usually ready for use within 48 hours.

Another way to meet users' needs is reclassification. The University of Oklahoma Libraries have books in both the Library of Congress classifications and Dewey classifications, the latter being older materials cataloged over 30 years ago. Reclassifying all materials into LC call numbers is not currently possible because of budgetary and staff constraints. However, we always honor occasional requests from users to reclassify certain subject areas or certain titles to allow easy browsing and retrieval. We have supplied alternative titles to works at the requests of public service librarians because users would request certain materials by their commonly used names. The set of microfilms, entitled "Enrollment cards for the five civilized tribes", issued by the National Archives, is in great demand at the University of Oklahoma Libraries. Users, mostly students, were told by their professors that the library holds the microfilm set, but they did not know the formal title and would ask for the set by its commonly known name "Dawes rolls". To provide easy access for the users, the cataloging librarian added the commonly-known title in the brackets as an alternative title, following Anglo-American Cataloguing Rules. By adding this alternate title into the bibliographic record, we enable users to retrieve the material they are searching for more easily.

We have also added cataloger-supplied series title to group separate works together at the request of researchers, e.g. we have added the series title "[Berkeley Media nonverbal communication series]" to a group of videodiscs about nonverbal communication. With some big multivolume sets and serials that have variable titles for each volume, it is very difficult for users to find the specific volume they need if the title for each individual volume is not shown in the bibliographic records. When needs arise, the cataloging department would discuss the issue with the public services to find the best way to meet these needs. Many monographic sets and serials with this problem have been analyzed (i.e. cataloged each individual title within the set or serial) so that each title can be searched separately. For example, *Lecture Notes in Mathematics* (published by Springer-Verlag) was originally cataloged as a serial by our libraries in 1964. At that time, it was the most expedient way to check in the volumes and get them ready for the shelf. However, researchers searching for author or distinctive title of a particular volume would not find the material in the online catalog. A decision was made to analyze each serial title in order to provide author, title, and subject access to these volumes and better serve their users.

Digitization

Digitization is a common phenomenon in libraries today. Digitization projects could be undertaken for preservation as well as access purpose. They are usually accomplished successfully with cooperation between both public and technical services. The digitized materials need to be assessed and evaluated by public services or special collections according to a library's collection development policy, priority and needs. The cataloging department should play an important role in the projects through the contribution of metadata and bibliographic control. Many libraries select special

collections and manuscripts collections as targets for their digital projects mainly because of the uniqueness of the collections. Through digitization, libraries provide access electronically to a wider circle of users and decrease the actual handling of fragile materials.

One of the projects the University of Oklahoma Libraries undertook to enhance the online catalog was a project to digitize title pages. The project began as a quick way to provide author/title access to a backlog of uncataloged titles, many of which were rare books in the History of Science Collections (Wyatt and Wong, 2004). Title pages were scanned and the images were downloaded into the online catalog. Metadata were added to the online catalog so that the images were searchable by author and/or title. As time permits, the titles are fully cataloged, with a hyperlink to the title page image. Since many of the titles are rare books, some title page images contain unique printer's device, author's autograph, provenance, handwritten notations, and other invaluable information. Through this project, the online catalog provides users, especially distance users, with an opportunity to examine these features without actually having to physically handle these rare and fragile books. For example, the scanned title page of the book, entitled *Aratou Soleōs Phainomena kai Diosēmeia*, was first added into the online catalog as one of the titles for the digitization project. It was fully cataloged later on with a link to the title page in the electronic access field stating: "Title page. http:// digital.libraries.ou.edu/ histsci/title.asp?ID = 4005 Electronic access to title page image available through University of Oklahoma Digital Collections". With the web address in the field, users can be connected with the History of Science Title Page web site. Once the user clicks on "View title page", the image of the title page will be displayed.

The Western History Collections at the University of Oklahoma Libraries are a rich resource of materials on the history of the American West, including more than 200 manuscripts about Native Americans. The Digitizing and Copying Center, in cooperation with the Western History Collections, digitized several Native American manuscript collections. Since one of the manuscript collections was integrated into the online catalog, the Cataloging Department provided hyperlinks to the digitized collection. It is hoped that in the future the other manuscript collections would be included in the online catalog, with links to the digitized collections, so that users could access more such valuable information easily.

Conclusion

With the cataloging experience and practice at the University of Oklahoma Libraries reported above, we want to emphasize the point that the quality of online catalog and the cooperation between public and technical services are two of the key factors in achieving high quality of user services. Our report shows that technical services, especially the cataloging department, can make important contributions to raising the quality of user services through their daily effort in maintaining and enhancing the online catalog. Now that distant learning, interlibrary loans, remote access, and electronic resources have become defining elements of the library environment, the online catalog is no longer seen merely as a bibliography, property and management tool, but rather as a service interacting with its users (Sabini, 2004). The cataloging department must constantly assess its workflow, and communicate and collaborate

with public services to provide better access to library users (Dragon and Barricella, 2006; Howley, 2004). Cataloging librarians should continue to play their traditional "organization and collocation" role in the bibliographic environment, but they need to think more creatively to make their service more actively user-oriented than passively rule-defined. They should extend their service as they expand the capacity of their online catalog.

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