

Opening a Catalog

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INTRODUCTION

“Opening the Catalog” will be employed as the metaphorical device for discussing the problems and prospects occasioned by the new cataloging rules and access to traditional and nontraditional information sources and services.

The discussion will be divided into three sections:

1. The impact of automation and technology on library catalogs;
2. Potential responses to *Anglo-American Cataloguing Rules*, second edition (AACR2) by different-sized libraries in relation to traditional cataloging principles, and automation and related technologies; and
3. Opening the catalog and serving the user.

Specifically excluded from discussion are minicomputer-based circulation systems with catalog-like functions since they are still too primitive in their capability to store and manipulate catalog records. Their potential for the local library is awesome and one might not be calling them “primitive” a year or two from now.

A second exclusion is the video disk, which seemed to be on the lips of most of the speakers at the Network Institute held in Pittsburgh in November 1978. Many people there felt that the marriage of the video disk and the mini- and microcomputer would augur a new era of library communication and access to information.

My preference in this discussion will be to focus on the application of existing systems and some of the opportunities available to us to improve library service and leave it to those with crystal balls to tell us about the “blue sky” future.

THE IMPACT OF AUTOMATION AND RELATED TECHNOLOGIES

“The times, they are a-changing” might be a more appropriate title for this discussion. For our purposes, three major areas of library automation and related technologies will be identified in which basic change has taken place. These three areas in turn serve as the fundamental preconditions for opening the catalog. These conditions have not been present in the past and they have a significant impact on the cost considerations of which we are now urgently aware.

First, machine-readable databases are commonplace, and where they are not, conversions of existing card files to machine-manipulatable form are now a negotiable and not necessarily costly process. In 1970 Richard De Gennaro wrote in *Library Trends* in regard to the retrospective conversion of large files that it would cost between \$1.51 to \$1.87 per record.¹ If we add inflation factors to the cost and keep everything else constant, at the cheapest it would cost well over \$2.00 to convert a full catalog record to Machine-Readable Cataloging (MARC II) format.

What we have seen since 1970 has been the creation of massive databases, for example, the 4.6 million records currently residing in OCLC, Inc., and cost-effective systems for the utilization of these databases in the conversion process. The following substantiates the point regarding the new economics of conversion and simultaneously provides a comparison with De Gennaro's estimate: Blackwell North America, a commercial vendor, offered a \$2.00 per record price in 1978 for the conversion of local catalog records to full MARC format.² The Tacoma Public Library, rather than do a truncated conversion of its catalog and holding files, leased a commercially available database and minicomputer system and converted its entire retrospective file of 500,000 volumes representing 250,000 titles to full MARC II records at a total cost of \$83,570. The net costs broke down to \$.33 per title and \$.165 per volume.

Another commercial vendor had offered a bid price of \$.96 per title and \$.48 per volume, if Tacoma had preferred to avoid the problems of managing and doing its on conversion.³

Fred Kilgour dropped a bomb in his speech at the New Orleans Institute, when he said that OCLC was doing a massive in-house retrospective conversion on a contractual basis that ranged in cost between \$.50 and \$.75 per record. In further discussions with OCLC staff at the time, one was given to understand that a \$.66 per record figure would probably hold up if the research library catalog file being converted continued to match the OCLC file 80 percent of the time. Incidentally, 80 percent was the same hit rate Tacoma Public Library found with the commercially leased database.

Thus it is with some degree of confidence that one can assume the precondition that conversions are a negotiable and not necessarily costly process, at least in terms of the prices of a decade ago. Further, at these prices, one might question advice from those who counsel against the conversion of retrospective catalog files. Some have also suggested that one should only do a short record conversion for circulation purposes or, piecemeal, do full record conversions of old catalog entries for new editions, translations or works of an author in the pre-AACR2 catalog, assuming a closed catalog. The argument will be made that a full record retrospective conversion might well be justifiable in terms of the potential benefits.

The second precondition is the recent recognition by the library community of the need for authority control, that is, authority files rigorously linked to bibliographic records. The New York Public Library (NYPL) pioneered in this area.⁴ The National Library of Canada has implemented some aspects of machine control of authorities, particularly with respect to the need for the maintenance of dual entries utilizing the two official languages of Canada.⁵ Further, the University of Toronto's Library Automation Systems group is hard at work developing an authority control system.⁶ And, in the U.S., we see that the University of Chicago,⁷ the Washington Library Network,⁸ Blackwell North America,⁹ and Brodart¹⁰ are all in some stage of development of machine authority control processes for large-scale catalog files. The Hennepin County Library transferred the NYPL authority file and authority control system to Minnesota and has been successfully using the system for controlling its catalog.¹¹ And, finally, the icebergs cracked and the glaciers melted, at least for me, when Fred Kilgour, at the aforementioned New Orleans Institute, talked about OCLC considering different authority control strategies. The strategies OCLC considered were rejected by him as being too costly or impractical, but the recognition implied by their consideration represented the first time I heard Kilgour consider authority control as something OCLC might need or admit is desirable.

But in spite of all of these positive cases, one would hazard the opinion that the two main reasons for recognizing the need for machine control of cataloging entries at this time have actually been negative. First, the catalogers who review the output from the OCLC terminals and who must fit that output into their own library's catalogs increasingly and loudly stress the need for authority control. When an OCLC search brings up several versions of a single bibliographical entity and none of them is a Library of Congress (LC) record upon which a selection decision can be based, one can appreciate an authority control system which automatically gives for cataloger review a newly input authority term, that is, one which matches nothing already established on the authority file, or automatically converts a known variant or invalid form of an entry or heading to an established or valid form. To reiterate, such a system will not let an unauthorized or invalid heading be approved without cataloger review or automatic conversion to the valid form. These two characteristics of authority control are built into the NYPL system,¹² and they could have gone a long way toward introducing some machine-based quality control into the OCLC system had they been incorporated into OCLC's original design. With over 4.6 million entries on a file¹³ that is growing at an accelerating rate, one has no idea what can help the OCLC database at this time. However, that is a problem distinct from the one concerning an individual library's OCLC archive tapes. These history tapes can be enhanced by processing them through an authority file. [The New York State Library actually does this by having the New York Public Library process its OCLC history tapes through NPL's authority control system and, incidentally, through its book catalog system as well. NYPL periodically furnishes the New York State Library with Computer Output Microform (COM) Catalogs.]¹⁴

The second and more recent reason for a growing awareness of the need for authority control is the imminent implementation of AACR2 and what one less than kindly but quite accurately might describe as “semi-desuperimposition.” One is aware that Library of Congress’ decision to close its card catalog on January 1, 1981 (and open up a brand-new card catalog right next to the old one), along with the reconciliation with the British who did not choose to superimpose, will mean that American libraries are going to have many forms of author headings different from the ones in their current catalogs, even with the minimized cuts of “semi-desuperimposition,” when AACR2 is implemented. If there is going to be a reconciliation between AACR2 and the previously established forms of names, a bibliographic file linked to an authority file in a machine-controlled catalog seems to be the only practical way to do it.

In a system such as OCLC where there is no authority control, each instance of a superimposed entry or added entry—even where there are dozens of them—would have to individually be changed to the new form. In a system such as NYPL's, a single authority file transaction will take care of the simple case where all instances of term A are to be changed to term B. This is true whether there is one entry or 10,000 entries with heading A. It seems clear that Americans, who already have enough trouble working with the duplication-prone and non-machine-controlled database of OCLC, and North Americans, who soon will be forced to cope with the problems of a new set of cataloging rules, desuperimposition, and the attendant resolution of varying heading forms, will readily recognize and appreciate the value and need for automated authority control.

Since LC has decided not to go ahead (as it periodically has promised to do) and systematically change its antiquated and insensitive subject headings, the reconciliation in manual or machine files of antecedent and new subject forms will be a problem, but probably not on the scale of AACR2. Technically the problems will be similar to those of entry if reconciliation between previous and altered forms is desired. For OCLC users there is, of course, no subject access. If they wish to have their machine records reflect a new term or have new cards reflecting the change, they will have to have each of the records in which that term appears manually called up by an OCLC search key. Can one see this being done for such entries as EUROPEAN WAR 1914-1918, one of a few LC promises to change by January 1, 1981?

So again, one can see the practical value of authority control. Of course, for a large manual or card file, AACR2's desuperimposed forms mean “death,” the finality of closing or freezing the catalog. However, one is concerned here with catalog openings, not closings. Since library readers and media users have already been so mistreated at the service end, we should at least try to solve the problems described in a manner that doesn't automatically require a second lookup, that is, a look into the closed catalog as well as the new one, at least for libraries holding 250,000 or fewer titles. The plight of large research libraries and the value of desuperimposition will be discussed below.

In review, the first two preconditions for opening the catalog exist. Many machine-readable catalog files now exist, and where they do not, conversions to machine-readability are now more feasible than they were five to ten years ago; and the appreciation of the need for and the development of automated authority control is becoming much more common. These two lead to the third precondition, that is, the existence of the COM catalog as the replacement for our tried, true, trusty, and now antiquated friend, the card catalog.

One is especially saddened and grieved to put the sword to the real guts and foundation of North American libraries, but, nonetheless, the card catalog is an idea whose time has passed. Admittedly, it will die hard and, one hopes, slowly. The conversion of the card file to machine-readable form and its replacement by the cheap and timely COM catalog, or by the less cheap, less timely book catalog; or by the least cheap, yet most timely online catalog should only be done as the result of a carefully considered plan which takes into account a wide variety of quality control factors and extensive staff participation. The two situations which one fears most are (1) conversions into nonstandard or non-MARC formats and truncated heading forms for catalog purposes, and (2) the perennial library problem of calling in the people who have to work with the tools at the time when the products are delivered rather than at the

inception of the planning for them. Fortunately, this latter problem is much less likely to happen now than it was ten years ago.

The COM catalog has several characteristics that the card catalog, the printed book catalog, and/or the online catalog do not have. Some especially related to the opening of the catalog are as follows:

1. It is cheap. A simple microfiche master, containing the equivalent of 207 pages of printout will cost between \$1.80 and \$5.00, depending on the volume produced and the graphic quality desired. Duplicates vary from 9¢ to 25¢.¹⁵ If one prefers to do the division at the highest price, it is 2.4¢ per page of master and 1.2 mills (1.2 tenths of a cent) per duplicate frame. Some have claimed that high data processing costs for COM cumulations make them prohibitive, but one would probably not consider NYPL's offering of COM service at the rate of 10¢ per record last year expensive. That 10¢ per record also includes support of the overhead of maintaining the machine-intensive processing required by the authority control system.¹⁶

2. Because of the extraordinary economics, it is possible to make many copies of the catalog. Although the cost of maintaining multiple copies of the entire card catalog is virtually unthinkable, multiple copies of a COM catalog can be had for a pittance.

3. COM can be produced and reproduced on a far quicker, more frequent, and wholly reaccumulative basis than its antecedent, the computer printed book catalog. Instead of quarterly cumulative book catalog supplements to an annual or biannual edition, bimonthly or even monthly total reaccumulations of the entire catalog file can be published in COM, depending on the size of the catalog. Even a slow COM vendor wouldn't need more than a few days or a week at the very most to produce a catalog, whereas four to eight weeks' printing time for a book catalog is not at all unusual. The COM recorder, the device which creates the COM master, easily does the equivalent of 400 to 500 pages of printout per minute.¹⁷ (And we thought the computer line-printer was fast at 400 to 500 lines per minute.)

We thus find that COM catalogs are a most desirable medium because they can be produced and reproduced cheaply, quickly, and frequently. This conjunction of factors makes COM an attractive catalog format from a time and cost perspective, although aesthetically, in terms of the display it presents the user, it is a step backward from other catalog forms.

POTENTIAL RESPONSES TO AACR2 BY DIFFERENT-SIZED LIBRARIES

Although any library, regardless of its size but with the available money, can exercise the option of retrospective conversion and the creation of a complete and ongoing machine-readable catalog base, generally those libraries with 250,000 or fewer titles would find complete record conversion and its costs more amenable. Having suggested this point, I can now proceed to examine some of the traditional cataloging principles.

Initially, several points should be made regarding the implementation of AACR2. Charles Cutter, America's greatest cataloging theorist, and Seymour Lubetzky, Cutter's twentieth-century successor, have together defined and established the basic foundations which have controlled cataloging practice in the U.S. for more than 100 years. Cutter asserted that the purposes of the catalog are to tell the reader what items the library has by a given author, if the library has a given title or an edition of that title, and what items the library has on a given subject.¹⁸ Lubetzky's enhancement of Cutter's purposes (reflected in the most fundamental of the Paris Principle) was the explicit identification of the notion of the work, as distinct from its physical representation by a given item. Lubetzky called for the bringing together in one place of all of the works of an author. An author is taken here to mean the individual spatial-temporal or corporate being, who has persisted through time, regardless of the number of monikers by which the person or body has been identified or known. Through appropriate references, these various names can be referred to the place in which all of the works by that person have been brought together. As to notion of work, all physical manifestations of a work, that is, the different editions, translations, and media forms, should be related to each other.¹⁹ This bringing together in one place all of the physical manifestations of a work and all of the works of an author has been referred to as "collocation." The collocation principle,

less explicitly stated by Cutter and more explicitly developed by Lubetzky, has been the basis for catalogs in American libraries, to the extent that it has been observed.

Let us now examine AACR2 and the contemporary situation in terms of this foundation. Even though it might be said that AACR2 will be the last set of cataloging rules based on manual catalogs, the policy of desuperimposition and some of the rules regarding choice and form of entry could only have been predicated on the existence of machine-readable databases which have the kind of authority-controlled files described earlier and which are described in the writings of the preeminent thinker on this subject, S. Michael Malinconico.²⁰ What is the basis for this assumption? It is clear that anyone who wishes to stay in accord with the Cutter-Lubetzky principles of the catalog has a single alternative: one catalog.²¹ Of course, there are two different ways to have the one catalog: In a manual card environment, one can feverishly supervise phalanxes of workers making the appropriate changes to the AACR1 and superimposed headings, thereby desuperimposing them; or one can arrange to convert the entire card catalog (if it has not already been converted) to machine-readable form and subject it to the rigid control of a linked authority file. In the latter case, a reasonable facility, as opposed to the undesirable labor intensity, would then be available by which to make desuperimposition changes required by AACR2 and emanating from Washington or created locally.

It was suggested earlier that libraries with huge card files probably would not be able to exercise this option. Although planning to ultimately have an authority-controlled and totally machine-readable bibliographic file at some future point, the University of California at Berkeley, like many large research libraries, will segment its catalog, that is, freeze the old one and start a new one.²² If there are no links, the principle of collocation is violated. What is forced on the user, minimally, is a double lookup. But the consequences are still more dire. As the prospective catalog's size increases, it may frequently happen that a user will find several works by a given author in that catalog and will not look or think to look anywhere else. Certainly a user would have little reason, except if/he were familiar with the policy of superimposition, to look in the old catalog under a form other than the one for which s/he was successful in the prospective catalog.

Because the large research libraries do not have the resources to create an authority-controlled prospective machine-based bibliographic file with links to retrospective forms²³ or, alternatively, they do not have the resources to make all of the required changes for a single card file, I suggest that their users would be far better served by the continuation of superimposition than by the watered down version of desuperimposition for which these libraries have so successfully lobbied. If LC's vision and development efforts on a bibliographic system had not stagnated over the years, it perhaps could have created a system which produced an enriched MARC card producers could then make appropriate cards for their customers.

Of course, some will be appalled by this late suggestion of sustaining superimposition, that much-maligned policy which maintained the collocation function for pre-ASCR forms and averted closed catalogs in 1967. It might come as a surprise to some of those who have repeatedly used his name to justify attacks on superimposition²⁴ that Seymour Lubetzky was probably the originator of the policy, albeit reluctantly, and thus the first to advocate it. In the "Questions and Answers" portion of his classic 1953 LC publication, *Cataloging Rules and Principles*, Professor Lubetzky admits that the past practices were complex and inconsistent but contended that the assumption was unwarranted that adopting the new principles which he advocated would require changing all entries.²⁵ Then he advocated the policy of superimposition which, incidentally, he continues to espouse for large unchangeable card files.²⁶ Although he did not coin that Orwellian term, "superimposition," he contended, "Adoption of the proposed principles...would arrest the existing complexities and inconsistencies. Thus the old headings could be left unchanged...and the proposed principles could be applied thereafter in establishing new headings."²⁷

In his introductory remarks to this Institute (San Francisco, 1978), Professor Lubetzky stated that the policy of collocation was still more important than abandoning old heading forms and thus

simultaneously undermining the foundation of the catalog by segmenting it, or as he put, it “dismembering” it.²⁸

Further, it has been claimed that AACR2 follows in the tradition of Panizzi, Cutter, and Lubetzky.²⁹ But I think that AACR2 violates the basic collocation principle advocated by Panizzi in the Royal Commission hearings,³⁰ reaffirmed by cutter, and then by Lubetzky. The form of entry rule in AACR2, which advocates the establishment of several forms of an author’s name linked by the use of See also rather than a single form in the instance when an author uses several names and none is predominant, is a clear violation of the Paris Principle which requires that all of the works by a given author be brought together in a single place.³¹ Of course, in a future online system, one might make the option of single or multiple forms of an author’s name a user rather than a cataloger option, but this future is still far away for most libraries. What may we then conclude? The options our leadership has given us do a distinct disservice to a research library user and to a research collection because of the violation of the collocation principle in the situation where a library does not have, ideally, a completely machine-based authority-controlled bibliographic database or have the resources to maintain a single integrated card file or a machine-based and authority-controlled AACR2 or day-one file with links to the card file. With the scattering of author’s works in different catalogs under different names, we are further closing the catalog rather than opening it. That thought leads to the third and final section of this paper.

OPENING THE CATALOG AND SERVING THE USER

The following discussion is predicated on the notion that some libraries will meet the three preconditions previously discussed and will maintain an authority-controlled machine-readable catalog file displayed via COM. We can now consider what was wrong with the practices associated with the card catalog as it has been traditionally maintained and how we are going to open that catalog and allow libraries to tailor their catalogs to meet the needs of their constituencies rather than stay locked into a single standard LC record.

Without belaboring points made elsewhere by many writers on the subject, many of the LC subject headings and name entries are not timely, relevant, or sensitive to the constituencies served by vast numbers of American libraries. Although in the manual past, a single form of entry, in effect a single standard record, seemed the only economically sound alternative, the machine-based present allows for a master machine record which can contain alternate forms suitable to the needs of different library publics. The National Library of Canada’s machine-controlled dual entries and LC’s provision of the National Library of Medicine’s MeSH headings and juvenile headings are examples where a multiplicity of forms are possible with respect to a given bibliographic entry.³²

Thus the catalog can be opened to meeting the needs of disparate publics through the dissemination of machine-readable records which carry alternate forms of headings suited respectively to those given publics. Because of the efficacy of machine based authority control systems, the new forms of headings usually can be integrated into a master authority file, and through the cost efficiency and timeliness of COM, updated reaccumulated versions of the whole catalog can be published. Whether LC is either capable of or interested in such an alternate service is only partially relevant; what is critical is that the technology now makes such a service possible.

The abandonment of the card catalog now permits us to drop the undesirable forms of entries and headings used in that catalog and instead initiate terms which promote rather than hinder access to the library’s collection. Of course, many of the needed LC changes will serve both public and research libraries, but many others will entail dual or alternate forms—a manageable problem with a machine-based authority-controlled catalog. Further, some of the entries will not involve one-to-one differences. For example, a book on eight famous Black leaders held by an American public library would be much better cataloged by having added subject entries for each of the leaders described, whereas a collective bibliographical heading has been viewed by LC as meeting the needs of a U.S. research library.

In both of these cases, a national cataloging distribution center would broaden the service range of the nonresearch library's catalog through availability of an enriched standardized record. Although not specifically tailored to that library, this expanded service should come a lot closer to meeting the library's clientele's needs than the aforementioned single heading service.

Let's now examine some other ways in which our catalogs have been closed; in some cases, we have not really been conscious of it. For example, librarians have tended to discriminate against nonprint media. In research libraries there is not much discrimination because nonprint media virtually don't exist there. (In this contest, I am excluding microversions of already published print forms.) Public libraries are probably the worst offenders in view of their frequent practice of segregation of catalog files by media format. Generally, there are separate sound recording and film catalogs. When there are media forms other than film and sound recordings, there probably is limited, if any, cataloging for them at all. If we take seriously Cutter's purposes and the requirements that all materials by a given author or on a given topic be brought together in a single place, then it is mandatory that our newly opened catalog intergrate all of the materials, for example, on "pollution" or by Maurice Sendak, regardless of their formats. A library user should not be forced to look in several catalogs to satisfy an information need. Worse yet, s/he, having looked for "Picasso" in the catalog for print materials, may think that all of the library's holdings on Picasso have been displayed, while, unknown to him or her, a fine documentary film interview or a slide-tape presentation on Picasso's blue period may be located through other catalogs. Of course, machine-readability does allow, as appropriate, for the display of information by medium and does not preclude the generation of a separate film catalog. One cannot deny that the adult education instructor who wants a series of films to supplement a course will find it far more efficient to select from a catalog containing only films.

It is especially true of research libraries that the catalog has been closed all too long to their users in the area of government documents, technical reports, and journal literature. The tree preconditions discussed have less bearing on these areas, but, nonetheless, these materials must be included in any discussions of opening the catalog and providing access to all of the library's holdings.

A major step forward was the production and dissemination of the *Monthly Catalog* in the MARC format. It is particularly important that valuable information contained in documents be brought to the attention of the reader much in the same collocative way discussed in reference to nonprint materials. An excellent government pamphlet on home repair, child rearing or first aid may satisfy the information need of a library user, but because it is not referred to in the catalog, it is not accessible. Commendably, many libraries do catalog especially worthy documents and make them available with the library's book materials.

We are still far away from integrating technical reports and journal literature into our machine-readable cataloging files. However, the first and necessary step is being taken with the procurement of database services by libraries so that access to these materials so greatly enhanced. It is absolutely critical that individuals using these services not be personally charged for that use. One is not talking about "free" access; nothing is free. But people currently do not pay special fees for the printed bibliographies and indices which libraries get at great expense (*Chemical Abstracts*, for example) or the use of the card catalog, the most expensive tool in the library. I see no compelling reason why an individual should be separately charged for the same information in machine-readable form that can be obtained without added charge in print form. The catalog in this latter database-service sense may be a more abstract notion, but, nonetheless, it is the instrument through which access is gained to the full variety of materials held by a library. These materials should at least be considered in our future thinking regarding organized access to *all* of the library's holdings. One might add that Hugh Atkinson was a pioneer, while director of the Ohio State University Library, in the introduction of database services to the general library. Additionally, Stanford University with Bibliographic Automation of Large Research Library Information network (RLIN), developed catalog system which will permit many of the flexible, Boolean type searches that are possible with the commercially available database services and are often referred to as potential search strategies in the future online catalog.³³

Another major area in which the catalog has been closed has been accessibility to local community information resources. It is not surprising that network planning and automation development have been focused almost exclusively on bibliographical and material delivery systems which will meet the needs of scholars at Harvard, HEW, the Rand Corporation, and the rare public or academic library user who effectively emulates the researchers at those institutions. But what about the information needs of the local community, of the people who want to know which city agency will help them with the landlord who has turned off the heat, or where to get redress when a merchant will not take back defective merchandise, or where to take their children for free inoculations, or where the nearest private tennis club is located?³⁴ These are all examples of community information needs that certainly are not solvable through traditional card catalogs and certainly do not seem to be the concern of those planning America's bibliographical networks or, for the matter, local catalogs. But isn't it reasonable that if someone is looking up "methadone" in one's local library catalog, that, in addition to print and nonprint materials on methadone held by the library, a citation be given for the local methadone clinic, certainly a place where a great deal of information is available on the subject? The idea here is to integrate all information resources into the catalog and indirectly break down the fortress-like setting traditionally provided for it by the library. We can now see the library as being not only a custodian for the materials it houses internally but a more aggressive referral agent. Getting these local information resources into machine-readable form and disseminated locally is a local information network problem which must be addressed and provided for. The national context of discussions should at least recognize the development requirements involved in the integration of local information resources into the local library's data files. For example, there is no MARC format for community agencies, that is, no subfield code for phone number, address, eligibility requirements, etc. Recognition of the value of this kind of information must be focused, and its standardization, with thesauri and service protocols, must be developed. We must hope that each library will not have to create its own information and referral format.

How the information resources of one community will relate to those of another requires further thought, but one can see potential uses made both by scholars and nonscholars. The head of a NOW chapter might want to find out the names of all the organizations related to women in Essex, Hudson, and Union counties in New Jersey. On the other hand, a university professor might conceivably want to pull out of a national database a list of all of the local consumer advocate offices in a given region of the country or perhaps all of the country. Thus, the inclusion of local information resources opens the catalog to a wider and more integrated variety of information.

Another major of enriched access to library collections would be the production of special purpose catalogs. These would not have been practically feasible prior to automated systems. Already alluded to was a catalog arranged by medium. But a much more innovative application was the use of NYPL's Research Libraries' card catalog to produce a special book catalog for a media center created in Harlem branch.³⁵ Enough copies of this catalog were printed so that each teacher in the branch's four neighborhood schools had available in each classroom a wholly integrated catalog of all of the specially acquired media materials and all of the print and nonprint items held by the branch serving the neighborhoods of those schools. It is through the machine manipulability of a database that such special products of services are possible. This instance shows the catalogs as a tool which can actively promote library service by going where the children the teachers are, as opposed to waiting for them to show up at the library.

We can make some general point about opening the catalog through the use of machine-based products. The COM catalog is readily reproducible and usable in as many places as there are COM readers. The Georgia Institute of Technology put COM copies of its catalog in dormitories, faculty and department offices, and libraries, at relatively little cost seven or eight years ago.³⁶ And the University of Toronto COM catalog has been widely discussed at meetings and in the literature.³⁷ This dissemination of the catalog is a major advance in research library bibliographic or catalog service.

Before closing this discussion of the opening of the catalog, a few comments will be offered regarding the *International Standard Bibliographic Description* (ISBD). One is now appreciative of its

utility to national libraries and conceivably to some of the large research libraries. One also recognizes the valuable service it performed by prescribing a standard sequence of descriptive element. However, I am totally unconvinced of the value of prescribed punctuation and Latin and other abbreviations required by ISBD, especially for public and school libraries. In addition, the necessary repetition of the author statement when it is identical to the main entry violates any principle of reason or economy one can imagine. A 1946 LC document on description stated: "The omission of author statements that are identical with author headings is a clear gain in the catalog entry."³⁸ One hastens to point out that machine-readable databases in principle make it possible for the library to exercise the option of deleting the relatively useless and obligatory ISBD punctuation from the individual catalog records through local programming or the programming of their bibliographic utility. For nonresearch libraries and for the uninitiated, those who have not been exposed to the religious symbols of revised Chapter 6 of Anglo-American Cataloging Rules, first edition (AACR1) and their meaning, there has been proposed the development of a descriptive format which fosters the immediate comprehension of the data elements of the catalog record³⁹ Marvin Scilken has offered the alternative of having the words author, title, and subject appear immediately adjacent to the appropriate headings to which they refer.⁴⁰ In this light, one study which should be considered is the development of an optimum nonresearch library catalog record display format. Such an alternative standard display could then be made available to libraries and library processors in the commercial and noncommercial area. As opposed to the process preceding the adoption by American Library Association (ALA) of ISBD, one in which no use studies were conducted, this alternative standard should include empirical investigation.

In order to demonstrate that this discussion of opening the catalog is not impractical, let me briefly describe the actions of a library where much of this has been done. Using NYPL's automated authority control system to its fullest potential, the Hennepin County Library (HCL) of Minnesota pressed ahead, converted its shelvest to MARC in 1972, produced a book catalog widely available in all of its facilities, as well as in some nonlibrary agencies such as the county government building, a local police station (because the branch head wanted her community to have 24-hour bibliographic access), completely revised antiquated and otherwise deficient LC headings in a simple and relatively painless way from a cost and time standpoint, and integrated all of its nonprint media into the catalog. HCL lists several community information resources as well as most of the government documents it acquires under appropriate headings in the catalog. In addition, HCL refers the catalog user to the vertical file via a public note under the appropriate subject heading when pamphlet or other non-cataloged material is available on that topic. HCL also routinely and automatically strips ISBD punctuation from LC/MARC records entering its database. And in 1973 it closed all of its card catalogs and eventually removed them from its branches.⁴¹

I will now conclude with the following pleas:

1. Librarians, please do all you can in your power to ensure that the closing of the card catalog is grasped as an opportunity to open the library catalog and promote the satisfaction of all user information needs.
2. Please do not run lemming-like to follow the de facto national library's practices or support your bibliographic utility's practices if they do not meet your kind of library's needs. When LC or OCLC or any other agency does not do the job your library's users need, lobby for change and the services you feel they do deserve. And if neither LC nor your utility can meet your users' information needs, try to satisfy them locally or in concert with libraries similar to yours. Finally, make the information resources of your library and your community as accessible to the users as is within your human power.

With an automated authority control system rigorously linked to a machine-based catalog file and displayed in the COM format, bibliographic service can be enhanced, while still maintaining the economic viability of libraries.

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9. This is based on a written communication from Mary Madden, vice president, Blackwell North America.
10. Brodart, *The Collection Access System. A Blueprint for the Implementation for a COM Catalog*, pp. 12-14 (Undated, but cover letter is dated April 10, 1979.)
11. Maurice J. Freedman, "Cataloging Systems: 1973 Applications Status," in *Library Automation: State of the Art II*, edited by Susan K. Martin and Brett Butler (ALA, 1975), pp.66-67.
12. Malinconico and Rizzolo, "The New York Public Library Automated Book Catalog Subsystem," pp.3-6.
13. *OCLC Newsletter*, no. 121 (February 8, 1979), p. 6. As of January 27, 1979, 4,591,299 control numbers have been assigned. Assuming the rate of 20,350 per week as a minimum (the previous week's input), every 5 weeks 100,000 more records will be added.
14. See Peter Paulson's paper in these proceedings.
15. The top prices are based on a high price paid by NYPL for full ALA character set microfiche and the low prices are based on the prices paid by the Hennepin County Library for upper and lower case microfiche. Prices should fall somewhere in between for most libraries.
16. This was based on a private communication with S. Michael Malinconico, former Assistant chief, Systems Analysis and Data Processing Office, the New York Public Library. According to Mr. Malinconico, these prices were offered during 1978.
17. William Saffady, *Computer Output Microfilm* (ALA, 1978), pp. 160-8-. In this section of the book, specifications are given for a variety of COM recorders, many of which have speeds ranging from 350 to 400 pages per minute.
18. Charles A. Cutter, *Rules for a Dictionary Catalog*, 4th ed., rewritten CGPO, 1904), p. 12.
19. Seymour Lubetzky and M. M. Hayes, "Biographic Dimensions in Information Control," *American Documentation*, vol. 20, no. 3 (July 1969): 247052.

20 S. Michael Malinconico, "The Library Catalog in a Computerized Environment," in *The Nature and Future of the Catalog: Proceedings of the 1975 and 1977 Institutes of the Information Science and Automation Division of the American Library Association*, edited by Maurice J. Freedman and S. Michael Malinconico (Phoenix: Oryx Press, 1979), pp. 460-48. An abridged version of this paper was published in *Wilson Library Bulletin* in 1976. This was the first of many papers dealing with and expounding specifically upon automated authority control and the impact of automation upon the principles of the catalog.

21 Regarding an earlier point, the urging that all of a given author's works be pulled from the old catalog and brought forward when a new one shows up, as opposed to a total retrospective conversion, is more than tacit recognition and is a continuing affirmation of the importance of the collocation function, at least regarding individual authors, if not catalogs.

22 See Joseph A. Rosenthal's paper in these proceedings.

23 This was actually what NYPL's Research Libraries did when they went to a computer-based book catalog. References were made to the non-LC forms found in the closed card catalog. If someone begins the search in the new catalog, collocation will be achieved, in principle, through the *see also* references.

24 Michael Gorman, "Toward Bibliographic control," *American Libraries* (November 1978): 620-21.

25 Seymour Lubetzky, *Cataloging Rules and Principles* (Library of Congress, 1953) pp. 56-57.

26 See Seymour Lubetzky's remarks in these proceedings.

27 Lubetzky, *Cataloging Rules*, pp. 56-57.

28 Ibid.

29 Michael Gorman, "The Anglo-American Cataloguing Rules, Second Edition," *Library Resources & Technical Services* 22 (Summer 1978): 225. The sanctification of title-page name forms by the framers of Aacr2 seems to be at odds with the above excerpt.

30 In the words of Panizzi,
[It is a fault]...entering a work under a title of nobility or dignity, or the mere form of name as it appears on the title page of the book, instead of under the family name of an author. Were such a rule to be adopted, the works of many noblemen and most prelates would be dispersed in different parts of the catalogue; besides the host of commoners, whose works are published under different forms of name through translation, marriage, or other cause, while great confusion must arise between the works of different authors who bear the same title. Such a practice would render it almost impossible to ascertain what works of an author were in the library..."

This excerpt is from Nancy Brault, *The Great Debate on Panizzi's Rules in 1847-1849; the Issues Discussed* (Los Angeles: The School of Library Service and University Library, University of California, 1972), p. 61. Brault brought together key sections of *Report of the commissioners Appointed to Inquire into the constitution and Government of the British Museum with minutes of Evidence* (London, 1850). The portion excerpted above is Q9824 from the...*Minutes of Evidence*.

31 *Statement of Principles Adopted by the International conference on Cataloguing Principles*, Paris, October, 1961, annotated ed. with commentary and examples by A. H. Chaplin...provisional ed. (IFLA Secretariat, 1966), principles 6.1 and 6.2, and commentary and examples following on pp. 10-16.

32 *Books: A MARC Format*, 5th ed. (Library of Congress, 1972), pp. 51, 52, 54. Herein are provisions for national Library of Agriculture, National Library of Medicine, and juvenile subject headings.

33 Allen B. Veaner, "BALLOTS—The View from Technical Services." *Library Resources & Technical Services* 21 (Spring 1977): 137.

34 Please note that all elements of the community, not just the economically oppressed, are entitled to information service.

35 To my knowledge no article has been published describing this project. The description of it is based upon my participation in this project during my tenure as Coordinator of Technical Services, Branch Libraries, The New York Public Library, 1974-77.

36 Edward Graham Roberts, and John P. Kennedy, "The Georgia Tech Library's Microfiche Catalog," *Journal of Micrographics* 6 (July 1973): 245-51.

37 See these proceedings, for example. Also, Valentina DeBruin, "Sometimes Dirty Things Are Seen on the Screen," *Journal of Academic Librarianship*, vol. 3, no. 5 (November 1977): pp. 256-66; and Ellen Altman, "On My Mind... Reactions to a COM Catalog," same issue, pp. 267- 68.

38 *Report of the Advisory Committee on Descriptive Cataloging of the Librarian of Congress* (Library of Congress, 1946), p. 5.

39 Marvin Scilken, "The Catalog as a Public Service Tool," in *The Nature and Future of the Catalog: Proceedings of the 1975 and 1977 Institutes of the Information Science and Automation Division of the American Library Association*, edited by Maurice J. Freedman and S. Michael Malinconico (Phoenix: Oryx Press, 1979), pp. 89-90.

40 Ibid. See also sample cards in the U*N*B*A*S*H*E*D Librarian, No. 1 (November 1971): p. 10.

41 Some of the work of the Hennepin County Library was originally described in Freedman, "Cataloging Systems..." but subsequently has been elaborated on in the writings of Sanford Berman, in the *Hennepin County Library Cataloging Bulletin* (of which he was the editor) and in his paper in the proceedings of this Institute.