



Access

News from the University Libraries

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FIRST STEPS IN AUTOMATION

LIBRARY FACULTY AND STAFF COMPLETE NEEDS SURVEY

An effective research library is not just a collection of books. Behind the hundreds of thousands of publications there must be a system and order. Otherwise it would be impossible to retrieve a wanted book from the enormous mass.

Such system and order are embodied in a number of structures common to all research libraries: the card catalog, the loan record file, and various other files and records used in acquiring and processing books. The assemblage of these structures can be called the library's system of bibliographical control.

The technology employed in establishing and maintaining these bibliographical control structures has been, for most major research libraries of the world, somewhat primitive until most recently. It has been hardly twenty years since the first steps were taken to introduce computer techniques into library processes. The innovation has been earthshaking. The reasons are not hard to discern.

Bibliographical control structures are extremely complex assemblages of data, the product of hundreds of thousands of hours of patient labor by many people over many years. Automation of these structures means nothing less than changing the entire technology by which the whole assemblage is established and maintained.

It is a delicate matter, this technological change. The new technology must be inserted into the library's processes without losing

the mass of bibliographical data reposing in the old bibliographical control system. And the change must be accomplished without disturbing the usefulness of the old structures before the new structures are in place.

Yet, the results are worth the effort. Experience with automated library techniques in major research libraries has shown that powerful new tools for bibliographical search can be made available, library service parameters can be greatly extended, and input costs can be reduced through the use of computer-based bibliographical control.

The first step in such a process of technological change must be an assessment of needs, which means analysis of existing structures and identification of required changes. When the University Libraries received news last year of a generous gift to support the automation effort, the first task undertaken was such a study of needs. This needs assessment survey was completed last December and the results are briefly reported here.

Need to Integrate

Since 1976 the University Libraries have been making use of two "partially automated" library systems, one of our own invention and one national in scope. The Online College Library Center (OCLC) in Columbus, Ohio, is a national bibliographic public utility that allows us to catalog books by sharing machine-readable bibliographical data with almost 3,500 other university libraries throughout the

country. The ACQUIS system is a data file and computer program based in our own University Computer Center and used for the control of book and subscription purchasing in the University Libraries.

Unfortunately, these two systems stand completely apart. Machine records produced on one (say, during the purchase of a book) cannot be used on the other (in the subsequent step of cataloging). It is not that these computer-based systems are not useful in themselves; they have assisted the University Libraries greatly in lowering input times, reducing confusion and saving labor. Yet so much more could be done if these partial systems were integrated. The first finding of the needs survey is this need to integrate existing systems.

Better Access

Finding that wanted book in a mass of over a million is a problem of access. The tool which has traditionally been used to provide access to a library is the Public Catalog. For more than a hundred years now that tool has depended on a technology based on pasteboard cards. (In earlier centuries catalogs were printed in book form.) But the pasteboard technology has reached its limits and this is evident in Notre Dame's Public Catalog in the Memorial Library.

Because of the sheer size of the Catalog (4,030 card drawers!), and the costs of producing and maintaining it, it is impossible to have more than one copy of it, and it can only be in one place. This creates considerable inconvenience for the use of collections that are distributed throughout the many floors of the Memorial Library and seven branch libraries as well. A computer-based catalog can be accessible in many locations throughout the Campus.

In addition, it has not been economical to put into the Public Catalog records for books that are on order or are in process. As a result, faculty, students and staff have to search several "temporary" files to find such information. Records for books on loan or assigned to temporary locations are kept in yet another file. The new computer technology allows a library to assemble all these other data about the wanted book in machine records, thereby facilitating access.

A file of pasteboard cards (especially one representing over 630,000 titles) can be set

in only one array. The physical form imposes that constraint. To overcome it, the traditional technology multiplied the number of cards for a title to provide additional access points such as co-author, title, subject, series title, etc. (Our Public Catalog has thus over 3 million cards.) Yet, these added access points are still insufficient for effective search. And they are costly to provide, so that only a few are made for each book, some of these with only part of the necessary data, a situation which leads to multiple searches in the Catalog. A computer-based Public Catalog, not constrained by the physical form of data storage, can provide many more access points for each book in the collection, can display complete information for each access point, can do this at less cost and with considerably more convenience for the searcher.

A second finding of the needs survey is therefore the need to improve access to the collections of the University Libraries in all these many dimensions.

Retrospective Conversion

For the present the computer-based OCLC cataloging system is used to feed our pasteboard Public Catalog; that is, the machine record is, for the moment, used to produce 3x5 cards. It is an interim measure and effective. However, the ultimate purpose of our OCLC cataloging is to employ the machine record to create appropriate terminal displays and to allow computer searching.

Since 1976, all new acquisitions (and some older books) have had machine records made for them. Thus, about 20 percent of all our catalog records are available as machine records. To create an online Public Catalog it will be necessary to convert the older 80 percent of our catalog records to machine-readable form, about 475,000 records.

The alternative of maintaining the older records in a manual Public Catalog has been considered and found to be both costly and difficult to justify. The full economy and convenience of a computer-based library catalog can be realized at Notre Dame, only if we no longer have to expend effort on maintaining a pasteboard catalog. A manual catalog which is not maintained would be a useless tool. Even a well maintained manual catalog of older books would present the user with a clumsy, two-step system without the

full advantages of machine access to the collections. Finally, a hybrid, half-mechanized catalog would make automation of book loans almost impossible.

A third finding of the needs survey is, thus, the need to convert the retrospective catalog to computer data-base form.

Improving the Loan System

A loan record is really a catalog record for a book showing that it is in a temporary location, say in a student's possession. A fully mechanized Public Catalog is thus a necessary base for a mechanized file of book loans. The present manual system of book loans, the circulation system, is a relatively smooth operation but it is limited to local information (the main library cannot tell what has been loaned from a branch library) and it is tedious and cumbersome to use. Bar-code labels, light pens and terminal access to the automated catalog at the Circulation Desk can provide better and more complete service for Notre Dame faculty and students in all Campus libraries, main and branches.

Our present manual circulation system is labor intensive. We have estimated that if our circulation files were fully automated, we would release about 8,000 staff hours per year for other assignments throughout the University Libraries.

A fourth need revealed by the automation needs survey, then, is the need to improve the system of book loan records.

Controlling Journals

Journals and other serial publications are the most difficult of the Libraries' materials to catalog, maintain, sort and circulate. The

manual records of journals at Notre Dame are badly out-of-date, with inaccurate holdings statements and complex entries in the Public Catalog. Many current subscriptions have been entered into ACQUIS to facilitate procurement and a printed list has been generated from this machine file. But both the printed list and ACQUIS computer file lack subject access and holding information.

The receiving of journal issues is a labor intensive operation. Many journal issues are checked in twice if they are sent to a branch library. Claiming missing issues is manual and time consuming and the risk of loss if not claimed is great. These receiving operations for journals are separate from cataloging operations and this requires another duplication of effort.

A computer-based library catalog which includes records for journals can be equipped with subsidiary programs to handle all these problems. Issue check-in can be handled rapidly at a terminal and provide an instant update of journal holdings for all users of the catalog. Claim notices can be generated automatically in timed sequences so that missing issues can be avoided.

A fifth need uncovered by the needs survey is thus the need to provide computer support to the management of journal literature.

Integration of present systems, better access to the collection, retrospective conversion of the catalog, modernizing the system of book loans, and managing journal literature are all needs revealed by this first step in library automation. With these clear service objectives in mind, the process of system design can now begin.

David E. Sparks

THE BUREAU OF THE CENSUS

STATISTICIAN OF THE UNITED STATES GOVERNMENT

The Bureau of the Census was officially established as a separate office in 1902. Its official function was originally dictated by the Constitution which provided for a census of population to be taken every 10 years. While the Bureau's charge has been

expanded since the adoption of the Constitution, it is still essentially the statistics taker of the government.

As mentioned, the Census Bureau's program of statistics has expanded greatly. Not only

does the Bureau count people every 10 years, but at intervals of 5 years it measures various areas of interest. In years ending in 3 and 8 for example, the Census of Agriculture is taken. For years ending 2 and 7, censuses are taken in: government, retail trade, manufacturing, wholesale trade construction, and selected service industries. During the same years the Survey of Transportation (not truly a census since a sample is used), and the County and City Data Book are produced. The State and Metropolitan Area Data Book is published in years 4 and 9. On an annual or more frequent basis the Bureau publishes the Statistical Abstract of the U.S., export and import figures, County Business Patterns, construction reports on housing starts and housing vacancies, the Annual Survey of Housing, Current Industrial Reports, Minority-owned Businesses, Women-owned Businesses and many more.

Besides statistical materials, the Census Bureau also publishes various "how-to" guides to their publications as well as "how-to" research guides. Four publications exemplify this: Age Search Information; Census Bureau Guide to Transportation Statistics; A Preview of the 1982 Economic Censuses; and Housing Data Resources, Indicators and Sources of Data for Analyzing Housing and Neighborhood Conditions.

In order to produce compilations of statistics, the Bureau has developed large computer data files. These data files are available either for purchase or lease. One word of caution, while the data files are complete, the information gathered will not always be made public. Strict protection of individual privacy is maintained by the Bureau, with some gaps in statistics resulting. When in doubt as to a privacy question, the Bureau will refuse to give out the information.

How does one keep current on the Census Bureau's publications and programs? Several publications will help. The Monthly Product Announcement of the Bureau will keep you informed about publications, data files and microfiche made available that month. It is distributed at no cost by the Data Users Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233. The Directory of Data Files contains abstracts of the Bureau's data files including summary statistics, microdata, geographic reference data and software. This is

available for purchase from the above address. Data User News will keep you informed about new Bureau products, services and programs, including training sessions available concerning census tapes. This is for sale by the Government Printing Office (G.P.O.). Finally the Bureau of the Census Catalog which provides information on selected products is for sale by the G.P.O. All of the publications mentioned so far in this article are available in the Memorial Library Document Center's depository collection.

Finally, some information concerning the 1980 Census of Population and Housing. The following reports have arrived or are coming in paper format: General Population Characteristics (PC 80-1B); General Housing Characteristics (HC 80-1A); Number of Inhabitants (PC 80-1A); Supplemental Reports: Advanced Estimates of Social, Economic and Housing Characteristics (PHC 80-S2) and Census Tracts (Maps only PHC 80-2). The Census of Population and Housing Block Statistics are arriving in microfiche only. The maps for this series are, as yet, unavailable to the depository libraries due to a contract problem at G.P.O. The balance of the 1980 Census has been delayed. A problem was discovered with the coding of census questionnaire. For several southern states the people coding the census information added a "0" to the income figures for individuals. This means that until the tapes are corrected no "detailed information" publications will be produced. This also means that income statistics already presented in the printed reports may or may not be statistically valid.

The computer tapes of the 1980 Census data are being distributed to the States through a system of "State Data User Centers" and their affiliates. The Notre Dame Computer Center is participating in this program and is receiving the tapes as they are made available.

Over one billion dollars was spent collecting the 1980 census. Congress and the Bureau, in an attempt to cut budgets, has sharply curtailed the amount of information to be published and has restricted the format in which publications are made available. (Block statistics are being distributed in microfiche only and there will be no final hard-bound, corrected versions of the final reports.) Some publications are being contracted to private companies with no provision for depository distribution. (Zip

code-based statistics may be purchased from National Planning Data Corporation who has an 18 month copyright on the data.) These statistics represent the most reliable and comprehensive statistics regarding population and housing for the next decade. The Census user must keep abreast in the area of the census program and express his needs to both the Bureau and his Congressman. As a citizen and a taxpayer, you have the

right to expect that this material be made available in a timely manner and in a useful format.

For more information on the Census Bureau, its publications or programs, please contact Steve Hayes, the Documents Librarian in Memorial Library (239-5268) or the Reference Department (239-6258).

Stephen M. Hayes

THE NATIONAL UNION CATALOGS ON MICROFICHE

A MAJOR BIBLIOGRAPHY GOES TO MICROPRINT

After a survey of the nation's libraries, the Library of Congress has decided to convert its various catalogs to microfiche. This change will go into effect in various stages over an extended period of time. The change of greatest interest to you, the faculty user, will be the imminent arrival of the National Union Catalog: Books.

The NUC: Books is a new publication combining the old National Union Catalog, Subject Catalog, Monographic Series, and Chinese Cooperative Cataloging. It will come in two parts, a register and an index. The register will contain full bibliographic information and will be arranged in register number order. The index will have abbreviated bibliographic data, will refer the user to the register for more information, and will have four access points, author, subject, series and title. The addition of a title index should be of great help; in the past if you had only a title you were out of luck.

The NUC: Books and certain other NUC microfiche publications, including the Library of Congress Subject Headings, will be

placed on a low table by the pillar opposite the NUC: Pre-56 Imprints on the first floor of the Memorial Library. In the interest of control and maintenance users will be asked not to remove fiche from the vicinity of the reader. In addition, to facilitate the accurate location and filing of fiche, pocket folders such as those used in the Government Documents area will be used in place of trays or drawers.

The switch to microfiche will allow a consolidation of Library of Congress catalogs currently shelved next to the Approval Display Room. Consequently we will be able to bring two other monumental bibliographic tools into close proximity to the NUC. These tools are the catalog of the British Museum and that of the Bibliotheque Nationale.

An instruction sheet will be placed by the NUC: Books for library users. If you should have any questions about these new arrivals, just drop by the Reference Center or call 239-6258.

J. Douglas Archer

BOOK SALES

SEMI-ANNUAL EVENT OF INTEREST TO ALL

The University Libraries' Spring Book Sale will be held on April 6-7, from 9 a.m. to 4 p.m., in the Library Concourse. Approximately 5,000 items will be sold at \$.50 for paper bound volumes and \$1.00 for hard-bound.

Large numbers of books in History, Political Science, Philosophy, Theology, and English and American Literature will be available. Many other disciplines will be represented in smaller numbers. This year's specials will include approximately 500 "leisure reading" titles and 700 issues of The National Geographic Magazine.

For those of you who have found yourselves wondering why the jewel of a book you've just purchased for next to nothing has wound up in a sale instead of on our shelves, rest assured, it was not by accident. Sale books are the product of a lengthy process marked by numerous safeguards. Over 15,000 books have been offered for sale since 1978, yet less than a dozen (0.08%) have been brought to our attention as possible errors.

The vast majority of book sale items come from two sources, unrestricted gifts and withdrawals from our collections. Withdrawals are made when the specific item is no longer needed. Two examples immediately come to mind, outdated textbooks and worn out copies. If the worn out book is of continuing worth, it will either be repaired (in which case it will not be withdrawn), replaced, or photocopied. The original will then be withdrawn and made available for sale, unless it is a rare or otherwise valuable book.

Gift items are continuously received by the Gift and Sales unit of the Acquisitions Department. They are given a preliminary screening according to specific guidelines based upon the Collection Development policies of the University Libraries.

This screening removes materials clearly inappropriate for our collection (e.g., nursing textbooks, leisure reading items in poor condition, etc.) and identifies items of special worth such as rare books and Notre Dame publications. The remaining books are then reviewed by librarians with selection responsibilities in the appropriate disciplines. Books which are selected for retention are "searched" in the Public Card Catalog to determine if we already have a copy. Duplicates are checked against the actual item on the shelf and then discarded if and only if there is no need for multiple or replacement copies.

Unwanted duplicates, rejects and screened out materials are then accumulated for the next sale.

Most sales since 1978 have been conducted with the assistance of Friends of the Library, and have provided us with a means of both ridding ourselves of unwanted materials and recovering at least a fraction of our processing costs. Last but not least, you, the patron, are given a chance for a bargain. Please join us for our next sale and help make it a success.

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