Retrospect and Prospect

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The remark (variously traced to Victor Hugo and to Ralph Waldo Emerson) that there is no stopping an idea whose time has come might well have been prompted by the subject of this issue of Library Trends. For the day of centralized/cooperative processing seems to be here at last, and there is no stopping it.

Yet its time might have come so often before! So many and so valiant have been the efforts that might have assisted it into being! Most of these efforts proved resounding failures; a few, great successes; but never before now (if even now) have all the needed elements been assembled in a measure adequate for success. Indeed, what most impresses the observer as he looks back over the long history of centralized/cooperative processing, is not the emergence of the idea—this has inflamed many imaginations over nearly two centuries—but the slow and arduous process by which the enabling conditions have been gradually recognized and gradually achieved. One is led to wonder whether even now we are capable of recognizing the important elements for the future development of these services, so as to enable us to seek the conditions that will assure their presence. If the survey presented in this issue of Library Trends should assist toward such a diagnosis and such a search, it will have justified itself.

Accordingly, let us look at the various attempts at centralized/cooperative processing with a view to seeing why some of them failed and why others succeeded.

The story of the first great attempt at cooperative cataloging in modern times, that of the French revolutionary government, still moves us both for its idealism and its naïveté. By decrees of the Constituent Assembly in December 1790 and May 1791 measures were prescribed for the custody and preservation of books and other literary

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treasures which had been nationalized as a result of the Revolution and which were being held in local depots throughout the country. The local authorities were required to catalog—on playing cards, no less—the books in their custody, to arrange the cards alphabetically, and to forward them to Paris where they were to be merged to form the basis for a 150-volume Bibliographie générale et raisonnée de la France (portentous foreshadowing of the 610-volume pre-1956 National Union Catalog now commencing). By 1794, according to a report made to the National Convention by Henri Grégoire, constitutional bishop of Blois, 1.2 million cards had been assembled in Paris representing 3 million volumes in the depots; but unfortunately most of the depots had reported in notebooks rather than on cards as instructed, and it being impossible to make a single file from notebooks, the project collapsed. We can be sure that it would have collapsed in any event, for quite apart from the political and military situation which was confronting France at the time, the project was bibliographically and bibliothecally premature.

The next great effort was that of the Smithsonian Institution, described by Miss Westby and John M. Dawson as the plan of the Institution's first and great librarian, Charles C. Jewett. (Ironic, that a great librarian should be principally remembered for a failure. But it was a magnificent failure!) This, even by today’s standards, was a very sophisticated plan, taking into account the needs and practices both of individual libraries and of the library world as a whole. At its heart, just as at the heart of the French project, was technological innovation. Like the French project it stood or fell with the success or failure of the new technique. In the Smithsonian's case, the innovation was an improved stereotype which, though its initial cost was higher than type, was expected to be capable of serving, as a bibliographic unit, for an indefinite number of printings. Unfortunately, the Smithsonian was betrayed by inadequate engineering; the stereos warped, the investment and the project were lost, and centralized cataloging was delayed for another half century.

But not for want of trying! A principal preoccupation of the American Library Association from its founding in 1876 was, as Dawson reminds us, the search for central sources of bibliographic information, for both books and journals. Many were the attempts made during the period to establish a source for book-cataloging information, but for one reason or another none was successful. In the field of periodical indexing greater success was initially obtained by co-
operative efforts, but (as Frederick William Poole put it) as the knights left the line they were replaced by retainers and camp followers and the accomplishment that was economically feasible through unpaid cooperation became an impossibility when the services had to be bought.6

Miss Westby has also described the important contributions to the work of libraries made by H. W. Wilson and the company which continues his name and his bibliographic empire—invaluable contributions involving both book cataloging and periodical indexing.7 An important element in Wilson's success was again a technical innovation—the use of the Linotype slug as a bibliographic unit. As many slugs as needed could be made from a single keyboarding of the text, and they could be sorted at will into whatever arrangement might be required. In spite of the technological revolutions that have shaken the printing industry since this innovation was introduced, it continues to serve nearly seventy years later. So far as is known to the present writer, it has never been successfully employed elsewhere. Its basic principle is that of printing itself, namely of making one typesetting or keyboarding serve multiple printings of the same text. This has now of course become a commonplace, and the effect can be achieved by photolithography as well as by tape-driven typewriters and by computers. All of these are currently used in bibliographic publication. But the H. W. Wilson Company has earned our gratitude by adhering to letterpress and to the Linotype slug.

The next great landmark noted by our chroniclers is the commencement of the Library of Congress catalog card distribution service in November 1901. Why did this effort succeed where its predecessors had failed? It is worth noting a number of the elements that favored it, while emphasizing in doing so that they were indeed a number and not just one.

The principal of these elements were: (a) the Library of Congress was acquiring for its own collections a large proportion of the books which were of interest to American libraries generally and for which they would need cataloging data; (b) it was cataloging these books for its own collections and was prepared to bear the full cost of this cataloging; (c) it was cataloging them in accordance with rules which it was at that very moment coordinating with those of the American Library Association; (d) it had adopted the recently standardized 75 × 125 mm. unit card as the building block for its own catalogs; (e) in order to expedite the printing of cards the Librarian of Con-
gress (Herbert Putnam) had arranged for the establishment of a branch of the Government Printing Office in the Library; (f) he was securing enactment of a law authorizing the Library to sell its catalog cards at a price based on the printing of the overrun only; and (g) in charge of the work he had placed Charles Harris Hastings, a man "of remarkable vigor, initiative and intelligence in a work without precedent, full of perplexity, and requiring the utmost patience, labor and ingenuity."

It is probable that there was little margin for error and that every one of these elements was essential for success. Sixty-five years later, when the card sales of the Library of Congress have climbed to fantastic millions per annum (63 millions in 1966), it is almost incredible that the service should ever have been in jeopardy. The fact is nevertheless that more than once its fate hung by hardly more than a thread in a series of cliff-hangers which still await and deserve the telling.

When the LC catalog card distribution service was announced in 1901, it seemed, as Dawson notes above, that centralized cataloging had arrived. Who could forget Melvil Dewey's ringing words at the Waukesha conference?

You remember that when the Pacific railroad was built, and the ends came together to make the connection, a great celebration was held throughout the country, a thrill that the work was at last done; and I feel today, now that we hear in this able report that printed catalog cards are really to be undertaken at the National Library, that what we have waited for over 20 years and what we have been dreaming about has at last come to pass.

But the success of the effort depended ultimately upon whether other libraries found the service sufficiently valuable to be willing to pay for it. They did. Although Metcalf believes that the LC card distribution system "probably cost the libraries of the United States more money than any other single event in library history," libraries generally appear to have concluded that it saved them money. William S. Dix says that it did. It must be remembered that an LC card is two things: it is a source of bibliographic information which can be used quite independently of the card, and it is a piece of stationery which is useful, among other things, for maintaining a card catalog. This double usefulness has undoubtedly enhanced its money-saving capability. In any case, in spite of grumblings, the libraries paid increasingly for the service.

From the beginning LC encouraged and participated in evaluations
of the effectiveness of the system. The first of these was made during
the very first year of operation;\textsuperscript{13} from then through the Richardson,
Ladenson, Dawson and Skipper inquiries\textsuperscript{14} the same principal defects
were identified. These were (a) delays in service and (b) inade-
quacy of coverage. Both have been due to circumstances largely out-
side LC's control, and LC has made continuous and strenuous efforts
to correct them.

It may be noted, however, that the importance attached to prompt-
ness and wide coverage has tended to absorb attention which might
otherwise have been given to other aspects such as quality of catalog-
ing, availability of analytics, etc.\textsuperscript{15} Unfortunately, this reversed the
proper scale of values, for while the effects of delay and inadequate
coverage are limited and temporary, the effects of inferior quality
are more likely to be both permanent and pervasive. Accordingly, it
is to be hoped that the present great forward surge in the Shared
Cataloging Program and the National Acquisitions and Cataloging
Program may finally succeed in correcting the defects of delay and
coverage, and make it possible to give deserved priority to other
matters of even greater importance in the long run.

Accordingly, without exploring the other consequences—no matter
how important—of the LC catalog card distribution system, such as
the National Union Catalog in both card and book form, we come
to the centralized processing centers of the present day. It is easy
to see how they, in their turn, have been made possible by a conjunc-
tion of technical, bibliographic, legal and fiscal elements, and of a
matching of supply with demand.

All central processing rests on the principle that it is less expensive
to do a job once for a number of consumers than separately for each
of them. This principle is so obvious and so persuasive that one fully
expects it to work in practice, and is somewhat amazed when it fails
to do so. But fail it does in the absence of conditions requisite for
success. When, for example, a job can be done for individual con-
sumers by volunteer typists using aged typewriters in an ancient
rent-free building, it is hardly to be expected that it can be done
more cheaply by offset lithography requiring a full-time trained
operator using expensive equipment in modern rented office space.

Nevertheless, by the 1950's there were a sufficient number of opera-
tions which offered savings through being done once rather than
separately to encourage the establishment of numerous centers.
Duchac has identified the most important of these operations when
he salutes the offset press as the *raison d'être* of processing centers.\(^{18}\) (Actually, the offset press shares the honors with other reproduction equipment, but the principle obtains nevertheless.\(^{27}\)) There are, however, other sources of savings, e.g., in consolidation of book orders, in the larger dealers' discounts resulting therefrom, in better use of cataloging information from the central sources, and in activities such as maintaining files of LC proof slips.

If central processing does indeed rest on the reduced-cost principle, we should expect to learn something about the extent of the savings from a survey such as the present. In fact we learn nothing of the kind.

Duchac, it is true, tells us that processing centers have successfully accomplished the purposes for which they were organized, one of which was to effect savings on the cost of books, and he affirms, besides, that they have demonstrated the "economy" of cooperative operations, but he does not particularize.\(^{18}\) From Miss Vann we get inconclusive evidence. We learn that cost-saving was one of the inducements to membership in a processing center but also that for those who joined and continued their membership the previous cost data is too sparse to be significant, while those who joined but dropped out give the higher cost of the center as one of the reasons for dropping.\(^{18}\)

Darling, meanwhile, reports that most school library centers appear to be too small to provide "economical central processing."\(^{20}\) But Hiatt, citing the Southwest Missouri example, states summarily that "the few studies that we have do not support the assumption that cooperative cataloging is necessarily cheaper"\(^{21}\) and adduces an instance in which it was actually dearer. He adds the seeming paradox that while centralized cataloging may cost more it is likely to accomplish less expensively the same level of processing as the independent units.

If the existence of the processing centers is not justified by reduced costs to their users, how then is it justified? Our authors provide suggestions for an answer to this question. Duchac mentions (a) elimination of unnecessary duplication of work, (b) the release of staff from processing time for other activities, and (c) uniformity of cataloging and processing.\(^{22}\) Miss Vann mentions (a) centralized ordering, (b) the availability of consultative services in cataloging and classification, (c) maintenance of the card catalog, (d) improvement of the catalog, (e) improvement of library services generally, and (f) release
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of staff time from cataloging to other activities. Miss Westby states simply that the commercial processing centers fill a need, but reports the users of commercial services to be evenly divided between the satisfied and the dissatisfied.

Darling marshals an imposing list of advantages (in addition to the now doubtful item of cost-saving) derived by school libraries from processing centers. These can be summarized as (a) greater promptness and up-to-dateness in the cataloging; (b) improved cataloging, better adapted to local teaching needs; (c) better use of personnel, including release of staff time to reader service and more efficient performance of clerical operations; (d) assurance of good cataloging no matter how small (or even non-existent) the staff and cataloging experience of the library; and finally (e) enhancement of the status of school librarians.

Hiatt lists similar advantages to public libraries from cooperative processing centers (again apart from reduction of costs): (a) the better use of (processing) personnel in short supply; (b) availability of professional (processing) services to libraries not able to afford them independently; (c) release of staff time for reader service; (d) reduced duplication of effort; (e) promotion of desirable uniformity.

There is undoubtedly still another advantage, not included specifically in any of the lists. That is the advantage to the library administrator of being able to get rid of the supervision of a demanding technical activity which is only a means but not an end in itself. It may be conjectured that to obtain this advantage librarians are willing to pay more to have their processing done by others than it would cost if done by themselves, given comparable promptness and quality of cataloging. In fact, 90 percent of those responding told Miss Vann that they would advise others to accept the services which they themselves were receiving, and 60 percent indicated that they would not resume their own cataloging even if the centers' prices were to rise.

Furthermore, although the principal criticisms of central processing are reported to be on the very point of promptness and quality of cataloging, the evidence suggests that more often than not both promptness and quality are superior to what the individual library provided for itself.

Now, into the midst of the processing center, emerges the book-form catalog, brought back to life after having been killed by the high cost and slowness of typesetting. As Weber remarks, the sequen...
tial camera and chain printer have been significant factors in the development of the book catalog, assisting it to become typographically and bibliographically adequate and acceptable, freed from the crippling limitations of an exclusively upper-case alphabet. But they were able to do this only because of a previous development—the successful marriage, perfected and demonstrated during the second quarter of this century, of two century-old arts, lithography and photography. Without the successful union of these arts in photolithography it would be uneconomic to print catalogs from shingled cards, by sequential camera, or by chain printers, and the British Museum Catalog would doubtless still be in the century-long process of being printed in letterpress. Here again, however, the enabling conditions fell into place, responding magically to the needs of libraries. For the moment that a book catalog can be used simultaneously as the finding list for more than one library outlet, whether part of the same system or not, at that moment it becomes an instrument of centralized processing.

Now, too, comes library automation based on computers. This has hardly as yet penetrated libraries, let alone processing centers. However, the New England Board of Higher Education has commissioned work on the development of a computer-based regional processing center intended to serve in the first place the libraries of the six state-supported universities of New England. Will conditions prove favorable for such a center? Will the techniques prove feasible? At this stage no one knows. In order to find out, an experiment must be made. The experiment may identify currently insuperable obstacles of technology or economics. In subsequent efforts it may or may not be possible to surmount the obstacles. The fact is that we are today almost as much subject to step-at-a-time progress as were Bishop Grégoire and Charles C. Jewett. Almost, but not quite, for second chances come sooner to us than to them.

Charles C. Jewett could not foresee that what he was trying to do with stereotypes in the 1850’s (namely, to publish the catalogs of individual libraries making use of cataloging information from a national store) would be performed in the 1960’s with the aid of a technique combining photography, lithography and catalog cards, even though all of these were within his experience. By the same token, it is not impossible that library problems of today will be solved by techniques with which we are quite familiar, but in configurations as yet unrealized and undisclosed. It is this situation
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among others which makes it quite bootless to attempt to read the future.

In the light of what we have learned about the progress of the centralized/cooperative processing idea up to now it is hard to doubt its ultimate triumph. The principle upon which it rests is the identical principle which Johann Gutenberg employed in the invention with which he ushered in the age of mass-production. If in its initial application to processing centers the principle fails or seems to fail to work in the sense that no clear cost-savings appear, there may be setbacks, as reported by Miss Vann.\(^{31}\) (It may, nevertheless, be suspected that present doubts regarding cost-saving stem at least in part from lack of precise knowledge of the cost of processing when performed by institutions separately.) However, it may be expected, on the basis of all experience hitherto, that further attempts will be made, making use of more effective techniques and of more favorable conditions of demand, until success is achieved. Indeed, as previously noted, there is already evidence that the success of the centers does not depend upon proof of cost-saving, but rather, that if their costs can be held to a reasonable figure, even though somewhat higher than the do-it-separately level, other advantages already justify their existence.\(^{32}\) Meanwhile it is interesting to note that in the salutary recommendations for improvement which Miss Vann has assembled, the quality of cataloging takes first place.\(^{33}\)

Nor is it necessary to look far for new techniques and changed conditions for the processing centers to test. Certainly, in the book-form catalog they are offered, as Duchac shows, an extraordinary opportunity for extending their services—an opportunity which Weber reports has already been grasped by a number.\(^{34}\) It may be expected that they will similarly attempt to make use of the techniques of automation, either by using cataloging information in machine-readable form (such as MARC tapes) in their processing (as is contemplated by the New England Board of Higher Education project previously referred to), or by the plans for central processing for public libraries in New York State\(^{35}\) or in other ways.

Beyond this point it is hardly profitable to look, for there are too many unknowns. Will the processing centers, having acquired experience in automation, tend to become regional centers for purposes of reference as well as of processing? There are many possibilities and alternatives.

A final word. One lesson has been consistently taught by the experi-
ence of the last two centuries, namely, that uniformity of practice—a common standard—is basic. (In fact, if the processing centers have suffered from one handicap more than another it appears to have consisted in lack of uniformity of practice among their members.36)

In her study of centralized cataloging in the Soviet Union Miss Buist has given us an instructive account of the accomplishment that has been achieved with the aid of widespread uniformity of practice, which is proposed to be extended still further. Specifically, Miss Buist notes the goal of “maximum similarity”37 of methods for generating catalogs and bibliographic publications and for serving both large and small libraries.

In this connection it is important to learn that a body in the United States which Miss Shachtman describes as “one of the major forces for compatibility in the Federal establishment”38—the Committee on Scientific and Technical Information—is gradually bringing the cataloging practice of the great technical-report-producing agencies closer to that of the country at large. It will indeed, as Miss Shachtman says, be inexcusable if libraries fail to take advantage of the encouragement and support of the Federal government. We are at a moment when it is at last becoming genuinely possible to take a major stride toward the realization of the one world/one library ideal, when the length of the stride will be utterly dependent upon the degree to which compatibility of records will have been achieved. At such a moment one of the greatest sources of encouragement and support which the Federal government could give would be the early completion of the process by which its bibliographical records can be brought into harmony with those of the country—perhaps of the world—at large.

References

3. Westby, supra, p. 46.
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9. Dawson, supra, p. 94.
12. Dix, supra, p. 97.
27. Vann, *supra*, p. 43.
32. Hiatt, *supra*, p. 78.
33. Vann, *supra*, p. 43.
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