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The American Library Association Committee on Bibliography

**The Use of Printed Cards in Cataloging**  
**Princeton University Library Practice, 1890 to 1920**

by

Ernest Cushing Richardson

Washington, D. C.  
August, 1933.

THE A. L. A. COMMITTEE ON BIBLIOGRAPHY

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*To the members of the A. L. A. Committee on Bibliography:*

This study in the use of printed cards is preprinted from "University Library Management, Princeton Practice 1890-1920". The work was undertaken in the line of President Root's address in 1922 urging the preparation of special studies of actual library experience as an aid to developing those quicker and less expensive ways of management which he thought urgent. This chapter was prepared at the present time as a study in aid of the project of this committee for the increase of published catalog cards.

Princeton experience does little more perhaps than confirm the now pretty well understood fact that printed cards are in reality a quicker and less expensive way of normal cataloging—putting as they do within the means of the lowest budgets the very best cataloging of more than half their titles and releasing the highest cataloging budgets of from 25 to 75 per cent of the cost of from 25 to 50 per cent of their titles.

One thing more however it does for one who lived through the Princeton struggle and has seen the contribution which these cards actually were toward the difficult problem—it makes quite plain that it is the duty of librarians to the trustees and taxpayers, whom Professor Root had in mind, to push the system to its logical end as a prolific means of quicker, better and cheaper cataloging.

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**The Use of Printed Cards in Cataloging.**  
Princeton Use 1890-1920.

*Preprinted from, "Library management; Princeton University practice, 1890-1920".*

Early in 1899 the Library Committee of the Princeton trustees adopted a policy of systematic promotion of cooperative cataloging with printed cards as a practical method of service economy. It reiterated this policy when Woodrow Wilson became President of the University in 1902 and again in 1916 when the Library, swamped by accessions, was forced to apply strictly the method which occasioned the original policy of 1899.

The occasion of this declaration of policy was the problem of reorganization. This problem involved the "reclassification and catalog revision" of the entire library; reinventory (accessions catalog), a change from fixed to relative location (reclassification, with new shelf catalog) standard cards and standardized entry, applied to author, subject and shelf catalogs. Every book had to be accessioned, reclassified, labelled inside and out, relocated on the shelves, revised as to entry and subject heading and provided with standardized author, subject and shelf cards.

All the older libraries had faced, were facing or were hesitating over, this problem of reorganization. Amherst began first and finished in the early eighties, using the then standard narrow card. Many others had begun and Columbia at least was finished or near finished. The Library of Congress had made a start with the new standard 12.5X7.5 cm. cards. Yale was pondering. The University of Pennsylvania had taken a bold plunge and had raised \$50,000—later increased to "much more" than \$60,000, for full and immediate reorganization.

The usual method of reorganizing libraries was at that time and still is, to dribble along over a term of years, as means permit, reclassifying one subject after another and at the same time revising catalogs to approved full standard. The method was extravagant, as the Librarian of Congress urged on Congress in 1901, (Report p.29) because it involved doing twice all accessions in unclassified subjects, instead of putting them once for all in permanent location with permanent finding numbers. It involved also other and even worse wastes in the retail handling of the

books and in defective and deferred service meantime.

This was obvious enough to professional librarians but hard for trustees to realize keenly enough to provide means. Moreover the executive and financial excuses for temporizing and spreading over indefinite periods were as plausible as they were fallacious and tempted to procrastination. The chief excuse was the bugbear of "hasty cataloging".

When Pennsylvania broke loose and faced the problem as a whole, everyone recognized the great savings and efficiencies produced by the method of doing all at once, but trustees generally realized also the total initial cost, more than ever.

Pennsylvania at first "decided to start the work in a small way" but after 10,551 volumes had been done in six months one of the trustees, observing the extravagance, confusion and inefficiency involved in spreading over a long term of years, furnished means for doing the rest provided they could be done in two years from Jan. 1, 1899.

Princeton had begun its plans and made preparations from 1890 by adopting standardized cards, standard accessions catalog and standard A. L. A. cataloging entry but it could do nothing which involved physical rearrangement of books until they had been moved into the new building. This moving was finished in 1898.

Early in 1899 all necessary preparations had been made, including a new decimal classification made by the Professors themselves, who had declined to use the Dewey Decimal system. All that was lacking was means. The trustees and financial friends of the library were alarmed by the magnitude of the work as suggested by the Pennsylvania project which was at that time reputed to be employing seventy persons for almost exactly the same number of volumes that Princeton had to face.

In this situation the Librarian first pointed out that the savings and efficiencies produced by complete reorganization at once, were more than enough to justify the Pennsylvania method, including standard cataloging at forty cents per volume, if the capital sum could be had.

Since, however, it was quite impossible for the trustees to face \$60,000 at that time, the Librarian then pointed out that the problem, as it was at the time being met by the libraries generally, was two fold and separable: (1) Reorganization and (2) Recataloging. He showed that all essential reorganization processes, including a certain amount of author, subject and shelf catalog revision, bringing up to the point of complete finding cataloging, all processes in short except full bibliographical cataloging, could be covered for not more than one fifth of the cost of full cataloging

(or one tenth as it proved). Four fifths (or nine tenths) of the cost of reorganization, as then practised by libraries generally, was for "full" cataloging. This reorganization with short cataloging would give all the main efficiencies of a full .40 per volume method and would establish all the very large economies which go with the ability to introduce all future accessions completely in routine method—a wholesale economy which only those who have seen the confusions and waste of the retail processes of reorganization can realize.

And finally the librarian presented the fact that if the experimental work in cooperative cataloging then being conducted for the A. L. A. under the leadership of Mr. W. C. Lane should be well supported and promoted, we might expect in the end to get even better cataloging than the then standard style, and on printed cards, for a fraction of what full cataloging was costing Pennsylvania, by simply replacing the short cards of first reorganization with printed cards, as they should be published from time to time. It was therefore likely that if vigorous and definite support were given to the A. L. A. efforts for this obvious method of cataloging economy by cooperative card publication, it might get results at a reasonably early date.

This appealed strongly to the trustees who were encouraged by the idea to raise among themselves, first one thousand dollars for a demonstration experiment, and then \$5,000 more when the experiment showed that this would effect the complete reorganization in one year. They farther authorized the librarian to actively encourage the promotion of cooperative cataloging in all reasonable ways especially in the assurance to the Association of their approval and willingness to take a fair share in any good plan for cooperative card production. At that time the A. L. A. publishing section under the direction of Mr. Lane was producing by central cataloging some 1300 book title cards annually and had produced during the previous year 2645 periodical article cards.

Reorganization was therefore undertaken on the definite policy of, (1) using rough and short cataloging regarded as provisional, (2) replacement by printed cards as fast as these should be published, (3) vigorous promotion of cooperative cataloging by published cards.

The project, after careful preparation, was begun August 1, 1899. The library then numbered 120,236. It was finished July 31, 1900 with 130,222 volumes (including current accessions) in full reorganization method. Pennsylvania finished Jan. 1, 1901 with 140,515 volumes standard cataloged as well as reorganized. On this date Princeton had

including accessions from August 1 to January 1, almost exactly this number in reorganized location but short cataloged only.

An account of the Princeton reorganization is given in another chapter of *Library Management* and an account of its cataloging practise in still another. What follows here is limited to the Princeton experience with cooperative cataloging by printed cards.

### 1899-1901 Promotion.

As soon as the librarian was assured of the support of his trustees and authorized to make announcement of this he took up vigorously the matter of helping in the systematic promotion of the A. L. A. movement for cooperative cataloging. With this object in view he accepted the Chairmanship of the A. L. A. Committee on Cooperation which had been closely associated with the movement from the beginning and which was prepared to give major attention to the matter at that time.

The A. L. A. movement for printed cards had begun with the foundation conference in 1876 (L.J.1:118-21) which appointed a committee on cooperative cataloging (with printed cards) at that time. In a paper presenting the preliminary report of this committee (L. J. 1876) Mr. Dewey said pretty much all that is to be said on the matter in principle. He recognized the motive for this as, the "vast economy of labor, patience and money" that would be effected if cooperative cataloging by printed cards could be done on some "good plan".

During the following twenty years many plans had been suggested and experimentally tried out. Some were "good" but not good enough. (cf. Jahr and Strohm. Bibliog. of Cooperative cataloging. Wash. 1903)

In 1886, the A. L. A. publishing section had been formed on proposal of the committee on cooperation (Lib. notes 1:20) for the express purpose of card publication (Library notes 1:101-7).

In 1894 the matter was taken up by the Library Bureau which published some 12,000 cards.

In 1896 the printed card publication of the Library Bureau had been taken over again by the A. L. A. publishing section which issued in 1898-9 published cards for 1330 books and 2646 periodical articles. Princeton had been reasonably active in cooperation and was one of only twenty (20) subscribers to full sets of these.

Early plans were for the extension of this central cataloging, and plans for financing looked to some guaranty by a group of cooperating libraries

of as full use as possible and of sharing any deficiencies from the operations of the central cataloging as organized by the A. L. A. Publishing Section under the chairmanship of Mr. Lane.

It was soon evident however that the problem might be more fully and quickly met by reciprocal cataloging service if the card printing libraries would only arrange to sell their cards. Some progress was made on this line, with the help especially of the John Crerar Library, which has been, always, a leader in this method. When, in the Spring of 1900, the Librarian of Congress decided to publish its printed cards, progress was ensured on a large scale. The farther step of the introduction by the Library of Congress of the printing of copy furnished by other libraries, clinched the matter—solved the problem in fact theoretically for the time and in the best way. All that was needed for complete solution was means for an unlimited publication of contributed copy.

Everything was however not clear sailing. Cooperation by the libraries was intended at first to include the purchase of a complete depository set by each library at a cent a card, as well as a maximum use of cards. Many even of the cooperatively minded libraries could not manage this. Some libraries too were not cooperatively minded. Other hitches too arose at the Library of Congress but the resourcefulness of its Librarian surmounted these obstacles.

### 1902-3 to 1907-8: Beginnings.

On October 26, 1901 the Library of Congress issued its circular offering printed cards for sale. The first subscriber was fittingly the Amherst College Library whose Librarian had been Chairman of the A. L. A. Publication board and deeply interested in its experiments with the printed cards, and which through Mr. Dewey and Mr. Biscoe, as well as Mr. Fletcher, had been closely identified with every progressive step in Library Science. Princeton followed a few weeks later with a deposit of one hundred dollars, but did not for practical reasons begin to use cards until some months after this.

Meantime the Princeton library had its own troubles in this matter. It was committed to the cooperative effort but the initial appropriation asked for in the budget of that year was novel except to the old committee and was challenged. The University was moreover changing presidents and everything done to date was being vigorously overhauled. The library had its turn and printed cards were an issue.

The library inquiry took the form of a detailed visit by the trustee committee on library, which formed a unique and picturesque episode in American library history. The committee in top hats and Prince Albert coats visited all parts of the library, led by President Wilson with the librarian as expositor. This visit was followed by a thorough discussion in full committee in the trustee room, at which the librarian and outside library experts were present. The committee included, among others, Woodrow Wilson, Grover Cleveland, and John L. Caldwell. Mr. Caldwell brought with him as expert, Dr. Billings of the New York Public Library. A good many matters of inquiry were introduced and were explained by the librarian or briefly discussed, but things finally resolved themselves into a discussion of the question of printed cards. Dr. Billings was a frank disbeliever in cooperative publication but was realizing the need, in a large library, for mechanical reproduction of cards and had brought with him a handful of Shapirograph cards. Discussion was extended and animated. In the end Dr. Billings himself, on being asked if an aniline ink would stand sunlight, tossed his cards on the table and declared for print (but not publication) and his intention to print all his cards as soon as he could install a sufficient plant. This ended the session. It was a model inquiry from a librarian's point of view—serious, attentive, dignified, considerate. Both the gruff common sense of Grover Cleveland and the swift intelligence of Woodrow Wilson played a part in the discussion and its satisfactory conclusion. It may be doubted whether any such highly technical detail of American library practice has ever had the serious and prolonged consideration of two presidents of the United States and the most famous library expert of his time, not to mention several first class lawyers and business men.

The inquiry completed and his own mind satisfied, President Wilson gave effective and progressive support to the utmost use of Library of Congress cards and 29,390 were purchased during the following year—the first full year of the Library of Congress operation, i.e. 1902-3, but not all of the cards were used for cataloging, since Princeton was then buying (1902-4) its depository set at a cent a card and this accounted for about 40,000 cards in 1902-4. About 25 percent of the accessions for the first two years were however cataloged by the use of these cards and in 1904, Princeton purchased 33,866 L. C. cards including depository set. This was 4.2% of the cards sold by the L. C. that year. It used moreover a certain number of other printed cards.

After 1904 Princeton was made a government card depository library

and permission given to file in with its cards the Crerar and other printed cards to form a Union catalog.

By this time the cataloging division as organized by Mr. W. W. Bishop in 1902-3 had settled into routine for full cataloging with the printed cards so far as they would go, and full or medium full card titles as developed by Mr. Bishop. A certain number moreover were done in full L. C. style for printing by the Library of Congress.

The following year (1905) salary appropriations were more nearly normal, as compared with other libraries of the time, than in any other year between 1890 and 1920. 10,933 titles were cataloged, 29 5/10 per cent done with printed cards. The number of Library of Congress cards purchased was 19,844 or about six cards per title cataloged with these cards.

In 1906 salaries had increased slightly but not to an amount equal to the increase in load and for the following two years appropriations declined slightly, while load continued to increase. This halt was due to the introduction of the preceptorial system and the urgent need of caring for this first. It was not due to any lack of interest by President Wilson, who consistently encouraged the most ambitious hopes for the library up to the very end of his administration. It was owing first to the needs of the preceptorial system then to the Graduate College. The halt proved permanent, so far as cataloging budget was concerned. 1905 was high water mark of salary means per unit of service in view of the current cost of labor.

In spite of the diminishing means per unit, however, full and medium full cataloging of all accessions continued up to and including 1908, being materially helped by the printed card system. The constantly increasing stock of purchasable cards, and the constantly increasing percentage therefore of titles which could be cataloged with their aid, at a cost of much less than one half the cost of medium full cataloging, proved a most significant factor in the cataloging problem.

The percentage of printed titles used increased steadily. In 1908 this percentage had risen to 37. The number of cards purchased that year was 30,244.

During these first six years of full use of printed cards, the percentage of titles cataloged with them had risen from 25 percent to 37 percent.

In 1908 the total subscribers were 1128, the total cards sold by the L. C. were 2,322,000—an average of about 2,000. Princeton took 30,244.



### 1909-1914. Normal increase.

During the second six years, from 1909 to 1914 inclusive, full use of printed cards was maintained and the percentage of L. C. cards used increased from 37% in 1908 to 48.9%. Accessions however increased faster than cataloging means and some short cataloging had to be introduced.

In 1909 accessions jumped 30% to 17,578. This was 4,081 above the previous year and 6,000 above normal load (11,000). The increase of salary budget was nominal. Under the circumstances, in order to maintain the rule that every title must be cataloged every year, it was necessary to introduce enough short title cataloging to make the ends meet. Each Library of Congress title cost at least twice as much as a short cataloging title and each medium full standard manuscript title cost at least four times short cataloging. It was necessary therefore in order to make things come out even this year (1909) to use 2,540 short titles.

The total titles cataloged were 10,481. Of these 7,941 were L. C. or medium full standard, 2540 short. The percentage of printed cards used was 41, the number of cards purchased 31,847.

During the next four years accessions dropped first to 14,253, then for three years to near normal (average 11,708). The number of short titles dropped with them, from 2540 to under one thousand in 1913. But in 1914 the number of volumes added jumped again, 25%, to 14,483 while cataloging budget crept up only 4% to \$8,760. The number of titles cataloged increased to 10,503 and the number short cataloged increased correspondingly to 1396. The percentage of printed card titles was 48.9 the highest point reached, or to be reached, during the whole period 1902-20. The number of cards purchased was 37,803, also the highest number ever purchased in a year.

In short this year, 1914, was the high water mark of printed card use and represents best just what use this library or any similar library could at that time make of the printed cards. The significant fact of the figures is that since full use of L. C. cards had been made all the time, this percentage growth from 25 to nearly 50 percent of titles cataloged was the normal result of the increasing stock of cards from which to purchase, not from any increasing diligence in application. The fact that every such library has in its current accessions many books published in previous years tends to make the usefulness of published cards cumulative with the increase of stock.

### 1915-1920. Decreasing use.

In 1915 came the deluge. It lasted through the whole of the third six year period to 1920 and was marked by a progressive decrease in the percentage of L. C. printed cards used—which dropped from the high point of 48.9 the previous year (1914) to 15.1 in 1920.

The direct cause of this situation was the practical doubling, during the whole six years, of the average normal load per dollar of the cataloging budget.

In the first year of this period (1915) accessions jumped from 14,483 to 37,946. The actual number of volumes handled, including duplicates and nearly 5,000 deposits, was 41,239 or three times the number of the previous year. The normal load which the catalog department was equipped to fully handle in L. C. card and medium full method was 11,000. The number of titles cataloged this year rose from 10,503 to 19,766. The cataloging budget dropped some \$400 to \$8,354.

The cause of this flood of books was in part an increase of 5,000 volumes in purchases but it was chiefly due to five large gift collections of exceptional importance (Fisk, Cook, Bowers, two Paton).

The unparalleled increase, both in purchased books and in gifts, during this (37,946 v.) and the following (26,169 v.) years was motivated by an intensive campaign of the professors for more books. Sometime during the year (1914-15) this campaign succeeded to the point of securing an increased appropriation of \$25,000 for book purchase during the following year (1915-16). This ensured at least double normal accessions for the coming year. The situation was farther complicated by urgent demands of the professors for more special department library service—department catalogs, reclassification and attendance.

The trustee and faculty committees took up the matter jointly and seriously. The whole situation was fully discussed. The main factor of the discussion proved to be a definite hope of very large increase in library funds in the near future.

Meantime the professors insisted strongly on the increase in books at the expense of service. They were, they said, prepared to accept any limitation of service necessary. They were adamant against asking the trustees for cataloging means proportionate to book increase but finally conceded asking an increase in salary budget which netted for the first three years of the period an average increase of \$1473 (\$8,354 to \$9,827) or perhaps ten cents per volume of increase in accessions.

The professors did however in fact make radical and wholesale, from their point of view, concessions in the matter of immediate department card catalogs. (See chapter on cataloging). They also postponed the maturing plan for uniting the old separate author and alphabetical subject catalogs in a dictionary catalog and postponed also two or three much needed units of reclassification, to the considerable annoyance of the professors in the departments affected.

Other drastic temporizing devices ordered were the following:

1. That the annual census of books should be discontinued. This saved the time of one assistant for cataloging, since the census was carried on the appropriation of the cataloging department, which then covered classification and shelf departments as well as cataloging proper.

2. The increase in the use of short cataloging to the limit if necessary.

3. A modification of the rule that all books must be cataloged each year so as to read "all routine accessions" instead of "all accessions" and permitting "large group accessions" to be spread over following years if necessary.

4. Finally it was ordered that, if and when necessary, a reduction might be made, even in the number of Library of Congress card titles used, since the cost of these, though less than the cost of medium full cataloging, was two or three times the cost of short cataloging.

This contingent and temporary reduction in the number of Library of Congress titles used did not mean however any lessened appreciation of the Library of Congress cards or any change in the policy of carrying the use of printed cards to the ultimate. On the contrary. The decision expressly meant that the faculty and trustee committees recognized explicitly the value of the system of printed cards and reaffirmed their policy of a maximum use of these cards. They had adopted from the beginning a policy, first of the systematic replacement of all manuscript titles in the catalog for which printed cards should become available by such cards and then of the systematic promotion of the system itself by encouraging the increase of published card stock to the utmost. The decision was made in view of this policy and active preparation was being made for this replacement. It carried with it thus the decision that with the increased means a first order of business should be to compare the entire author catalog with the union catalog of the L. C., John Crerar, and other printed cards and replace manuscript cards with printed whenever possible, reaching thus a maximum possible use of all cards printed to that date.

The decision also involved the original policy of 1899 as to a definite encouragement of the effort to secure an increase in the stock of published cards by cooperative effort. This promotion now included, among other efforts, an active cooperation in the so called A. L. I. plan for the increase of printed cards by having libraries with noteworthy special collections each take responsibility for publishing the cards for such collections.

Altogether it was obvious that if this method of systematic replacement was to be put into full effect in the very near future the injury to service of temporary short cataloging would be small, the financial easement considerable and the possible relief to the current situation large. It was directed therefore that short cataloging might be applied even to titles for which L. C. cards could be had.

#### 1915-1917

During the first half (1915-17) of this period of declining percentage (1915-20) no very radical application of the various temporizing devices was needed beyond postponing projects for added service and a large increase of short cataloging. Short titles reached 9,043 titles the first year and averaged nearly 6,000 for the three years.

This increase of short cataloging however did not at first decrease either the number of titles cataloged in medium full standard method or the use of Library of Congress cards. On the contrary. Standard full cards averaged more than the average of the three preceding years and the average purchases of L. C. cards 5,000 more. The full Library of Congress method titles contributed for printing by the L. C. did decrease however from 584 to 103 but it still averaged 364 for the 3 year period. Full use of the L. C. cards was made for all routine accessions as distinguished from large group accessions.

The percentage however fell rapidly on account of the large increase in the number of titles, and a diminished use of the L. C. cards, for the bulky group accessions. It fell—first to 38.9 then to 35, then to 26.9. In full normal use the percentage would have been more than fifty percent.

#### 1918-1920

During the second half of this concluding period of decreasing percentage of use, however, circumstances changed. The descent was rapid in percentage of titles cataloged with the printed cards, also in full L. C. method

cards for printing by the L. C. and in the number of cards purchased. Every possible device had to be employed to maintain the rule of cataloging every volume every year and these devices included even the reduced use of Library of Congress cards.

The percentage decreased in the three years from 30.8 to 15.1, the number of medium-full title cards from 6,434 to 1,118 and the number of L. C. cards purchased from 23,087 to 14,544, or less than 40 percent of the average for the four preceding years. Copy furnished to the L. C. for printing averaged only 4 titles against an average for the preceding three years of 364.

In 1914 the full method titles had outnumbered short titles 7 to 1. In 1920 matters were reversed. Short titles outnumbered standard full titles 6 to 1. In this year only 1818 titles were done full standard and these were done practically all with L. C. cards—the only full cataloging of this year.

The cause of this sudden fall was, first, America's entering the war, which operated to reduce appropriations, increase wages and postpone the hope of "ample means", and, second, the ending of the war which operated for the rapid increase of service demand without increase of cataloging budget.

At the beginning of the academic year 1917-18, America had entered the war. Cataloging budget was reduced from \$10,380 in 1916-17 to \$6,930 in 1917-18. The war time wage increase had also begun and a good deal of time was detached for special war work or for furloughs of members of the staff for war work. The cataloging staff was diminished to 62 percent of the staff of the previous year.

On the other hand however accessions mercifully dropped to 12,033, much the lowest of the period. This permitted the maintaining of approximately the general standard of the previous three years but it compelled increasing still farther the percentage of short titles and the decreasing by about one third the number of printed cards used. 9,900 titles were cataloged 6,434 in normal standard full method and 3,466 short titles. 23,087 printed cards were purchased compared with 36,138 the previous year but the percentage of L. C. titles to total titles cataloged even rose a trifle (29.6 to 30.8) on account of the decrease in total titles cataloged (16,907 to 9,900).

Soon after the opening of the next academic year (1918-19) came the Armistice. This came, unfortunately for the administration, after the low wartime cataloging budget of \$7,240 had been voted. With the

Armistice all library activities, except circulation, which waited on return of enlisted students, began to recover with a bound. Accessions jumped to 22,786 and included several collections (notably the Brünnow, Strong and Pitney collections) which deserved the best cataloging. The legitimate demand of the professors for more service also multiplied rapidly and the unjustified demands for more special service still more rapidly.

The plans for a great University endowment drive which had been postponed by the war had now been taken up vigorously but results could not be expected before the next year and no increase of cataloging appropriation was to be considered meantime. Nothing remained but to apply extremest measures in view of the prospect of "ample means" the next year for replacement by L. C. or medium full standard cards. These measures were applied drastically in the increase of short cataloging, the decreased use of Library of Congress cards, the wholesale application of photostat methods and a large increase in the customary carrying over of "in progress" work, mainly copying work beyond the inflexible one author card for the main catalog, into the first part of the next year.

All cataloging for this year was short except what was done with L. C. cards. Short titles increased to 8,721 out of 10,309 titles cataloged, the percentage of L. C. cards used dropped from 30.8 to 15.4 and the number of cards purchased dropped from 23,087 to 14,339. Broadly speaking every volume accessioned during the accessions year ending July 15 was cataloged but something like 3,000 titles were cataloged with master card and author card in the main catalog only, the rest of the copying being carried forward as "in progress work" into the beginning of the next year and included in the filing statistics of that year.

It was possible however to report at the end of the year that every book received during the year had been at least short cataloged with at least an author card filed in the public catalog and "that all regular accessions", i.e. all accessions except the gifts received in bulk, like the Magic, Brünnow, and Paton libraries, had been cataloged, labeled and placed on shelves, with at least one card in the author catalog, each day, i.e. within twenty four hours of its accessioning.

It had been hoped and expected that at the opening of the academic year 1919-20 the results of the drive for endowment, including "ample funds" for the library, would be available but it proved that, while the endowment was an assured success and pledges were large, cash had not begun to come in much. The librarian was therefore asked to hold on for one year more if possible. He answered that it would be possible,



in view of the early prospect of adequate means to do this, for one year more, without any break down of system or organization but not without such natural criticism by the professors as would call for the strongest backing by both faculty and trustee committees to explain and justify the continued limitation of normal service after funds were actually in sight and every one keen for improvement in his own lines of service.

It was therefore so ordered and the year started with a slightly increased cataloging budget (\$9,580) which however did not restore to the pre-war budget (\$10,380). The appropriation was still farther increased during this hectic year of kaleidoscopic changes, as farther money was appropriated for book purchase and special service. The accession items cataloged numbered 17,921 (14,983 vols.; 2938 museum objects, war posters, etc.). Titles cataloged were 12,022 of which 10,204 were short cataloged and 1818 medium full standard. The percentage of Library of Congress cards again dropped slightly, from 15.4 to 15.1 and the number of cards purchased was 14,544.

The average volume accessions during these last three years was 16,601. The average number of titles cataloged was 10,744. The average percentage of printed cards used was 20.4 and the average of cards purchased 17,323. The average cataloging budget was \$7,500 of which perhaps one half was available for new accessions—say .25 per volume.

### Summary.

For the whole period (1901-1902-1920) the total accessions had been 278,611. The total titles cataloged had been 189,523 (including considerable re-cataloging and some cataloging of broadsides, war posters, currency, museum objects, etc. Of these titles 140,463 were standard full (i.e. printed cards, 64,000 est., copy for L. C. on its full standard; and Bishop medium full standard, 74,463). Short catalog titles numbered 49,060. The average percentage of printed cards used had been 33 and the potential use at the end of the period was well over fifty percent of all volume accessions.

About 64,000 titles had been cataloged with printed cards, and had used, on an average nearly 7 cards per title.

Altogether in July, 1920 there were some 236,000 titles in the catalogs compared with 94,531 in 1901 and with 74,418 in July, 1900.

Since the total titles cataloged had been 284,080 it appears that some 48,000 titles had been re-cataloged. Not all of these were however from

the original 94,531 of 1901. Many represent later groups of books first short cataloged and then re-cataloged with L. C. and medium full cards or not volume accessions. Altogether however it may be estimated that the 236,000 titles of 1920 were made up, in round numbers, of: 64,000 titles printed cards; 76,000 medium full (Bishop) standard, 40,000 short titles and 56,000 titles before 1902—140,000 full and medium and 96,000 short.

On July 31st, 1920 there were in use in the various catalogs, including the union catalog, nearly 1,500,000 printed cards of which 1,006,244 were in the Union Catalog the balance in the various service catalogs.

The number of printed cards in the public catalogs was not far from 400,000 or more than one half the cards, although these represented only one third of the titles cataloged, owing to the fuller subject, editor etc. entries of full printed card cataloging.

### Library of Congress cards.

The printed cards used were from several sources but the overwhelming majority were of course L. C. cards.

Princeton had been strongly committed to the support of the L. C. plan by fullest use from the beginning and purchases were therefore relatively large.

In August, 1904 Princeton was one of 387 subscribers who purchased 806,780 cards at a cost of a cent a piece—an average per subscriber of 2083 against purchases by Princeton of 33,866—4.2% of all L. C. sales that year—one card out of 24 sold.

In 1914, the peak of Princeton practice, when percentage of titles used reached 48.9 just before the progressive decline began, Princeton was one of 1986 subscribers who purchased 5,673,000 cards or 2856 cards each. Princeton bought 37,803.

From the beginning up to the peak, July 31, 1914, Princeton had purchased 312,441 cards out of 33,378,400 cards sold or nearly 1% of all cards sold in the 13 years.

In 1920, when the library had reached its lowest ebb, it was one of 2,877 subscribers who purchased an average of 2,310 cards each, while Princeton, even at this lowest tide, still bought 14,544, or six times the average purchases of other libraries, although less than one fourth of one percent of L. C. cards sold that year.

For the whole period the average annual subscribers had been 1,541 and their average total purchases each 44,904 or an average per year, per

subscriber of 2,360. The average annual purchase of Princeton had been 26,177 compared with this 2,360 or more than ten times the average library purchase, and its total of 471,187 cards for the period had been correspondingly more than the total purchases of the average subscriber for the period, which were 44,904.

These 471,181 cards purchased by Princeton had cost \$5,185.31, somewhat more than 2/3 of one percent of total cards sales of the L. C. (69,197,400) and slightly less than 2/3 of one percent of the total cash received for sales (\$843,681.48). The larger percentage of cards over cost was due to relatively large purchases of cards in the earlier years when average price of cards was lowest.

There is some reason to believe that the Princeton card catalogs in 1920, in spite of decreased use for three years, contained a larger percentage of Library of Congress cards than any of the other large reorganizing libraries.

#### Other Printed Cards.

Besides the Library of Congress cards, Princeton purchased for cataloging use (excluding cards for bibliographical use only such as the Zurich, Brussels and Berlin cards and the cards of the Department of Agriculture) at least 248,429 cards, representing 188,375 titles of which 27,551 were serial analytics. 160,774 of these were added to the Union catalog. The A. L. A. serial cards formed a special catalog (27,551). Duplicate cards numbered 60,000 or more and of these possibly 20,000 were used in full method card cataloging but exact statistics of these cannot be distinguished. The unused cards were for the most part sold to other libraries. Possibly five percent of the printed cards used in regular full cataloging (excluding the Union catalog of books in other libraries) were from other than L. C. sources.

Apart from a few minor groups the chief contributions to the cards, outside the Library of Congress and the A. L. A. cards, were the John Crerar (140,000?), Harvard, (17,734 titles, 71,090 cards) and the University of Chicago (3,056 titles, 9,788 cards) cards.

The John Crerar cards could be searched and individual titles ordered in routine, as with the L. C. cards, from the Union catalog, and a considerable, but unknown and not very large number, was so ordered. The superb cataloging of the Crerar made its cards in the Union catalog of great practical value for cataloging research but the well known practice of the

Crerar of using class numbers, instead of providing alphabetical subject headings, was a certain handicap to automatic use in cataloging and, with other matters, tended to restrict use of these cards as compared with L. C. cards.

Neither Harvard nor Chicago was willing to undertake the detail of retailing their cards but both arranged to sell complete series at a very modest wholesale rate and, since both were University libraries, with similar scope of needs, the experiment was tried of ordering, besides the card for Union catalog, three additional cards of each title for contingent use in cataloging.

These sets of three cards each cost less than a cent a set for Harvard cards and only two cents for University of Chicago cards. The cards were filed as stock and used in routine on occasion and to some extent in replacement and special cataloging. It was well understood that both Harvard and Chicago, being twice as large as Princeton, would have many titles unusable for the present, but the Princeton library had been encouraged by certain supporters to hope that sometime it might equal or surpass both in numbers and, in the face of wholesale increase, these cards would be useful as guides to purchase as well as for prompter and better cataloging. It was not so well understood then as it is now, after the experience of the L. C. Union catalog, how large a fraction of these titles need not and should not be duplicated in other libraries.

Nevertheless a large enough fraction of the cards was used to justify the experiment even if the balance had been wastebasketed instead of serving as it did a valuable use for other libraries.

It is probable, from Princeton experience of these two university groups of published cards, that an A. L. A. distributing organization might have bought editions of these cards and have sold enough of them at L. C. prices to yield a good profit in cash together with a good balance of less salable but not quite valueless stock.

On the whole however, the greatest value of the minor groups of cards, at 1/5, 1/3 or 2/3 of a cent a piece, was for the Union catalog, to which they added a decided cataloging aid usefulness, bringing up as they did the 845,800 titles of the Library of Congress to more than a million (1,006,244) titles, serving automatically, and in a single routine, cataloging information as to full names etc.

## Photostat Cards.

Photostat printing like mimeograph, hectograph, shapirograph and other methods of reproducing cards was, and is, to be sharply distinguished from type and press printing. Recent improvements in photostat paper and methods and the very highly developed and improved work of the mimeograph are a great advance in execution over 1920 but these are still inadequate competitors with real print for published cards.

For special cataloging however they were, even before 1920, a remarkably useful method both of quick cataloging and of special cataloging of various sorts, and Princeton developed experiments with several, especially the photostat.

The photostat exhibition for the A. L. A. visit in 1916 lists seven kinds of cataloging and thirteen species, of which nine were for card cataloging, with cards inserted in the catalogs with other manuscript and printed cards. The best and perhaps the largest illustration of the quick cataloging use was its application to the Brünnow collection, purchased for the university by a group of friends of Professor Brünnow and friends of the library. This collection contained 5,971 volumes. This was in 1919 when the Library was attempting to handle 22,786 volumes with a cataloging appropriation of \$7,200 and was therefore putting into operation every short cut device. It happened that Professor Brünnow had made a complete card catalog but on a large sized card. These cards were, as mentioned in the librarian's report for that year, "reduced to standard size, at one third the cost of typewritten cards and in one eighth of the time". This was especially significant in that all the titles were of a difficult type and most of them difficult Oriental titles.

Another application of the photostat was to war posters (2,222) war currency and museum objects (2,506). The Brünnow cards were placed in the general catalog but afterwards replaced with short title cards. The application of this method to museum objects, manuscripts, currency, posters and other various material was a matter of the utmost convenience and economy for the cataloging of this kind of material. The advantages quite outweigh the disadvantages of the paper, certainly for special catalogs and the quality of the cataloging is greatly enhanced by it. The fact that the photostat negatives from this kind of material can be used to make simple and convenient photostat book catalogs is not the least of the advantages of the standard size card photostat cataloging of special material.

Very little use was made of photostating as a simple card reproducing method but it might have been used on a very large scale, systematically from the union catalog, if it had not been felt better to use short cataloging and a standard card, pending printed published cards.

The total number of permanent photostat cards introduced into the main catalog was therefore very small, though suggestive. The number in special catalogs was, however, considerable and very suggestive of improved cataloging and large economies in these matters, as well as for quickness in cataloging.

## Fullest Possible Use.

When it is said that there were not far from a million and a half printed cards in the Princeton University Library catalogs in 1920, this represents the actual use but not the full use of the cards which was possible and which had been planned. Carrying through would have added at least 250,000 cards (40,000 titles replaced)—say a total of 1,040,000 titles with a total of 700,000 printed cards in the public catalog.

For the twelve years of increasing use, 1903-14, the figures of cards actually used are a near maximum of possible use in current accessions but even in this period there were some books cataloged in manuscript for which later from year to year purchasable cards were issued. Before card use began there had been 94,581 titles cataloged and these might in 1920 yield as much as 30,000 replacements. During the period of decreasing use, 39,381 titles were short cataloged but a majority of these titles had been searched for L. C. cards and, even at the lowest years, one third of a possible full use had been made so that the replacement was not likely to yield more than ten thousand cards. Altogether however there were probably at least 40,000 titles in the three groups which could be replaced and which would add 250,000 cards to the catalogs.

This rough analysis in short suggests that in spite of the unfinished recataloging of the L. C. and of the large percentage of titles in the Princeton catalogs older than the beginning of the published card system, some 45% of the whole library might have been put into printed cards by complete replacement in 1920. It suggests also that, at present, with L. C. stock increased by 400,000 titles issued meantime to well over 1,200,000 titles, such a library as Princeton may have more than half its titles in printed cards. Smaller libraries with few foreign and few obsolete titles will have a much larger percentage. As a rule the larger the library

is, the smaller the fraction that can be done. This generalization cross checks with the Auburn experiment and other studies as to use in other libraries.

As for the possible use of John Crerar cards, these could of course be used in systematic replacement and analysis of a short experimental group suggests that they could add perhaps 2,000 titles. The handicap of having no alphabetical subjects is in this case largely neutralized by the fact that the replaced short cards already have subject headings which may be automatically transferred. In this way the gain of good Crerar entry and printed legibility would be had without prejudice to revision of subject headings later if desired since these could easily be taken up systematically at any time as the distinctive typography points out automatically the titles for attention.

The possible use of photostat cards is still greater but more dubious.

There is a strong modern tendency to use photostat cards freely in the general catalog. This has been encouraged by the Yale experiment for an official catalog and by large use in the L. C. card and Union catalog divisions service, both for rapid extension of the union catalog and for service from this catalog for other libraries. It has been still farther encouraged by improvements in machines and paper. The general maximum use of photostat cards in main public catalogs is however still dubious and photostat cards are still certainly inferior to press printed cards, although of very great aid in quick cataloging and for special catalogs of various kinds.

If however a maximum photostat use of the Union catalog of the L. C. were to be made, it would add the excellent and numerous N. Y. Public cards and those of various other card printing libraries to the possibilities of the Princeton Union catalog and might increase by fifty percent the number of full titles.

This test cross checked with the preceding statistics and estimate, suggests the probability that any similar library of learning may catalog 75 percent of its books in this way—popular libraries more and larger libraries of learning less. Concrete experiments with several smaller libraries of learning have also cross checked with this.

This replacement moreover might now be done almost automatically for the Princeton Library since all of the 236,000 Princeton titles of 1920 (which include nearly all titles in the library which now need replacement) are in L. C. Union catalog as well as more than one hundred thousand of the more unusual titles of later Princeton accessions and the "unusual"

titles are precisely those least likely to have been already done with L. C. cards.

### Replacement.

The kernel of the catalog reorganization policy of 1899 and its various reaffirmations was replacement. It was believed that the published card system would in the long run result in the replacement of nearly all hand-written cataloging by better cataloging at less cost than even that of the very common sense Pennsylvania standard.

It was hoped that under favorable circumstances the extension of published cards might be carried to the point of replacing all much used titles within rather a short time. By 1920 this hope had been largely justified. The majority of the most used titles had been, or could be, replaced with first class printed cards cataloged in full style with ample subjects and this at one third the cost of the Pennsylvania standard or even less—and a good many less used titles as well. By that time too, it had begun to be in doubt and under discussion in the problem of catalog overloading, whether the full subjects of obsolete and unused books should be introduced into the catalog at all. At all events a million titles had been produced in print by this time and could be used by purchase order or by photostat copying from the local Union catalog, while nearly a million more could be had by photostating from the L. C. Union catalog.

The key to replacement was of course the union catalog and the chief preparation for replacement was the development of this catalog by the introduction of as many American entry printed cards as possible. Published cards were therefore purchased freely and these were kept filed up to date—July 31st, 1920. These cards, whether used as order guides for published cards, or as copy for photostat cards, or merely as an aid to standardize entry for revised manuscript cards, were the major factor of replacement.

Following, or perhaps preceding this, the chief preparation was in making sure that there was an author card in the catalog for every book in the library, i.e. every permanent accessioned book (excluding temporary deposits) ready for complete checking through with the union catalog. All author cards were therefore kept filed to date and included all July 31 accessioned volumes (except for 800, more or less, uncataloged "problem" titles held up for special reasons).

A very important cross check of this card author catalog was developed

as a by product of the printed finding list and an aid to replacement and inventory. (See chapter on this). The printed list had been made from the shelf cards and formed therefore a complete cross checking inventory of book titles in the library. Comparison of this with the author card catalog would reveal whether any cards had been lost either from author catalog or shelf list and would produce a verified list. The printed list would also serve as a handy check list for recording titles done or not done with printed cards and this checked printed list would be a convenient and time saving method of checking all author entries with the union catalog.

Everything was ready for the systematic replacement but unfortunately means did not materialize.

During this last year of the storm and stress period, the long promised drive for university endowment was going on and a lively campaign was on foot. This was expected to issue in "ample means" for "all the services wanted by the professors". The trustees laid on the faculty the responsibility of saying what they did want.

The professors set to work seriously about this business. A very high caliber committee, uninfluenced by prejudice or by technical knowledge of library management, gave faithful attention to the matter in nearly thirty meetings, at perhaps ten of which the librarian assisted as expert. They operated also by various sub committees.

The net result was a circumstantial demand for five, or even ten times as much increase in service as increase in means for service. In the field of cataloging some of the chief demands were for "full cataloging", full recataloging, department card catalogs, several reclassifications and other special cataloging service.

The increase for book purchase was disappointing and put an end to the hope of adequate expansion as hitherto understood but the increase for service was less adequate still and "ample means for cataloging", even the increased purchases and even on the 1905-8 standard of Library of Congress cards and medium full type, were out of the question. Full cataloging, recataloging and the rest of the matters specifically demanded, were quite beyond the budget—or any reasonable budget. Even Library of Congress card replacement had to wait.

#### **Promotion of published card extension.**

Meantime the allocation of service funds for overhead had been con-

siderable and when it proved that a very experienced and highly esteemed university librarian might be induced to undertake the duties of a "librarian in the Harvard sense", while the then librarian became "director in the Harvard sense", the latter was glad to put the whole executive responsibility for the difficult task on younger shoulders, retaining only the control of "general policies, teaching aspects and matters of inter-library cooperation". By this latter was specifically intended, first the promotion of cooperative printed card publication, as the now well recognized method of producing full cataloging at least cost.

The general policy of encouraging the librarian to devote any necessary amount of time to promising lines of cooperative effort by Library association work, the visiting of libraries and the taking part in cooperative projects had been approved in 1890 and was specifically approved as to cooperative printed cards in 1899. It had been restated at various times and was now applied to the existing situation.

Under these circumstances the director was able to devote his main attention to these matters and when, after two years, responsibility for general policies was also transferred to the librarian, it left the director free from 1922 to give all his energies except for a little teaching of palaeography, to the promotion of inter-library cooperation.

The concrete objectives as defined at that time included cooperative card publication, union catalog, cooperative purchase, cooperative selection and cooperative aids to service. These objectives are more fully stated in a paper read before the American Library Institute in April, 1922, printed in the Library Journal for April 15, 1922 and reprinted in "General library cooperation and American research books, 1930, pp.27-39".

From 1922 the Honorary Director gave his almost exclusive time to these matters until his retirement in 1925 and afterwards as Hon. Director Emeritus, working with the A. L. A. committees and having special offices in the Library building, suitable to, and allocated for, this work.



## General Summary

L. C. Cards purchased by Library of Princeton University 1902-1920.

	Volumes added	Titles total	Cataloged		Percent L.C.	No. Cards (approx.)	Cost
			full	short			
1903	10,181	7,817	7,817		25	29,390	\$293.90
1904	9,585	10,305	10,305		25	33,866	\$338.66
1905	12,285	10,933	10,933		29.5	19,844	\$198.44
1906	10,542	7,481	7,481		33	16,444	\$164.44
1907	12,084	9,886	9,886		33.8	14,018	\$140.18
1908	13,527	7,291	7,291		37	30,244	\$302.44
1909	17,578	10,481	7,941&	2,540	41	31,847	\$318.47
1910	14,252	8,668	6,898&	1,770	40.5	18,986	\$189.86
1911	11,693	8,328	6,438&	1,890	38	20,129	\$201.29
1912	12,067	7,551	6,463&	1,088	47.8	28,871	\$288.71
1913	11,365	8,201	7,206&	995	45.6	30,999	\$309.99
1914	14,483	10,503	9,107&	1,396	48.9	37,803	\$378.03
1915	37,946	19,766	10,723&	9,043	38.9	33,333	\$400.00
1916	26,169	13,174	10,034&	3,140	35	37,305	\$447.67
1917	15,252	16,907	12,100&	4,807	29.6	36,138	\$433.66
1918	12,033	9,900	6,434&	3,466	30.8	23,087	\$346.31
1919	22,786	10,309	1,588&	8,721	15.4	14,339	\$215.09
1920	14,983	12,022	1,818&	10,204	15.1	14,544	\$218.17
	278,611	*189,523	140,463&	49,060		471,187	\$5185.31

\* This total includes considerable recataloging with L. C. Cards of titles before 1902 or titles first short cataloged and afterwards replaced.

APPENDIX A

**Studies in Replacement Possibilities.**

**(1) Replacements from the Princeton Union Catalog.**

This study is based on 970 titles of books added before 1920 and 542 titles added since. These fall in the same alphabetical groups: Aall to Abu'l-Farag and Baader to Baddeley.

Following are figures in detail.

Older titles	970	Newer titles	542	Total	1512			
Replaceable by printed cards								
DLC (or LC)	370	DLC	319	DC	689			
ICJ (or JC)	12	382	ICJ	10	329	ICJ	22	711
Replaceable by photostats of full method printed cards.								
MH (or Har)	53	MH	9	MH	62			
ICU (or UC)	17	ICU	18	ICU	35			
MiU ( )	2	72	MiU	6	33	MiU	8	105
Titles replaceable		454		362				816
Not replaceable		516		180				696
Grand total		970		542				1512

This study of 1512 titles shows that 816 (711 printed, 105 photostat) titles either have been, or could be replaced by ordering or photostating from the Princeton Union Catalog, leaving 696 not replaceable from the local Union Catalog. The larger number which might be obtained from the Union Catalog at Washington is indicated in the second appendix.

The number which can be replaced by ordering printed cards is 711, of which 689 are L. C. cards and 22 Crerar cards. The additional 105 printed cards which can be used by photostat are from Harvard (62) University of Chicago (35) University of Michigan (8). These do not include the

Berlin cards but cover only titles from American card printing libraries with first class staffs.

It will be noticed that, as might be expected, a much larger fraction of the newer titles can be replaced from Library of Congress cards, than of the older titles. 319 out of 542 newer titles give nearly 60 per cent, as against 370 out of 970 older titles which is well under 40 per cent.

## APPENDIX B

### Studies in Replacement Possibilities.

#### (2) Replacements from Library of Congress Union Catalog.

This study is based on the same 1512 titles used in the study of replacements from the local Princeton Union Catalog as given in Appendix A.

The photostat figures include only full method printed cards cataloged by first class staffs.

Following are the figures in detail:

Older titles 970		Newer titles 542		Total 1512
Replacable by printed cards				
LC	468	LC	324	LC 792
Replacable by photostats of full method printed cards.				
ICJ (or JC ) John Crerar L.	12	ICJ	6	ICJ 18
ICN ( ) Newberry L.	0	ICN	1	ICN 1
ICU (or UC ) U. of Chic. L.	7	ICU	14	ICU 21
MB (or BPL) Boston Pub. L.	33	MB	12	MB 45
MH (or Har. ) Harvard U. L.	33	MH	3	MH 36
MiU (or NYP) U. of Mich. L.	6	MiU	6	MiU 12
NN ( ) N.Y. Pub. L.	48	NN	25	NN 73
Titles replaceable	607		391	998
Not replaceable	363		151	514
Grand total	970		542	1512

The above study was made by the kindness of the Curator of the Library of Congress Union Catalogs, Mr. Ernest Kletsch. He has carried the study through so as to show farther the number of cards done in less than full method, but useful as cataloging aids (109), and the number not

found in the Union Catalog at all (178). The balance (217? or 223?) of the 1512 cards, is made up of short title finding cards not useful in replacements except for occasional hints as to entry.

These figures checked up with the Princeton university card catalog show that there were among the older titles 188 L. C. titles out of the 468 L. C. titles which might have been used for replacement but have not been used. This is nearly 20 per cent or about 45,000 of total older titles. Of the recent titles only 56 L. C. titles of the 324 which might have been used, have not been used. This is about 10% of the whole number cataloged.

The 45,000 replaceable older titles indicated by this analysis correspond pretty well with the estimate previously made on other data (p. 21) of "at least" 40,000 titles. This new study shows that 792 out of 1512 can be done with L. C. cards and cross checks the estimate from other sources (p. 21) "more than half in printed cards" and gives 52 per cent in Library of Congress cards only, without regard to John Crerar cards.

With the use of photostat cards of printed titles in Union catalog at Washington, done by first rate staffs in full method, the number of titles which could be produced would be 998 out of a possible 1512, which cross checked with the estimate from other data of 75 per cent, suggests that the former estimate was excessive for the present library and that the number which can actually be replaced in libraries of this size is two thirds rather than three fourths.

A superficial study of the kind of cards included in the experiment suggests that for a college library the size of Princeton in 1920 (437,000 volumes) or anything under half a million volumes the estimate of 75 per cent might still hold.

It should be farther remembered that if full title, but not full method work by reasonably first class libraries, were to be used as recommended in several directions but not advised and strongly deprecated by many it would add 109 titles bringing the total of printed cards and photostat cards up to 1,103 out of 1512 which is practically three fourths but this certainly is not to be advised. Even the best photostat titles are still of doubtful value for use on a large scale in regular cataloging, in spite of the remarkable improvements effected by the Yale and Kletsch experimenting. For most libraries it will be better to wait hopefully for some plan for reprinting all first class titles cataloged by well staffed libraries, which

cannot be had from Library of Congress printed cards, as suggested by the A.L.A. Committee on Bibliography.

The Princeton University Library numbered July 31st, 1920, 437,707 accessioned volumes, (subject to losses and removals). On July 31st, 1933 it numbered 741,387.