

THE EXTENSIVE SUBJECT FILE:
A STUDY OF USER EXPECTATIONS
IN A THEOLOGICAL LIBRARY

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

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Denton, Texas

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This study is concerned with determining how library patrons decide which entries to select from a subject card file which consists of numerous bibliographic records. Patrons are expected to select certain records based on elements that are objective (displayed directly by the record and requiring little or no interpretation) or subjective (recognized because of the user's special knowledge of the field).

This study has a threefold purpose. The first is to determine the extent of the problem of long subject files in a theological library catalog. The second is to determine which elements on the catalog card are most important to the user in selecting materials from such a file. The third is to demonstrate how these elements may be built in as access points in a computerized catalog system.

In a study of the subject catalog of the Graduate Theological Union Library in Berkeley, California, it was determined that there is a build-up of cards under certain subject headings. Interviews were then conducted with patrons. Eighty per cent of the users stated that they used

at least all of the information from the main body of the catalog card, while 30.9 per cent indicated that they drew information from the entire card.

The objective elements hypothesized to be most used by the patrons in selecting entries from a long subject file were (1) complete title, (2) language of the title, and (3) date of issue, in that order. The results of the interviews revealed, however, that the elements most used by the patrons were (1) complete title (key words in the title), (2) date of issue, and (3) language of the title.

The subjective elements hypothesized as useful were (1) the reputation of the author or issuing body (author recognition) and (2) the reputation of the publisher. The patron's previous knowledge of the work and recognition of items in the tracings were expected to appear as lesser used items of information. The results of the survey revealed that author recognition ranked first, as hypothesized, but previous knowledge of the work ranked second, with the publisher's reputation in third place. Patron's recognition of items in the tracings ranked fourth, with denomination of the author in fifth place.

This study concludes that a pattern of search keys should be created for subject entries which would combine the desired subjective and objective elements selected by the patrons as most important.

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CHAPTER I

BACKGROUND OF THE PROBLEM

Upon entering a library, a person is immediately faced with a question: How shall I find the information that I want? The "typical" American library patron will either browse among the materials or locate the library catalogs and begin searching for a needed item. Even selecting the proper catalog may be difficult, however, for the catalogs may be of various kinds. There may be one card catalog with the author, title, and subject cards all in a single alphabetical file, or there may be separate catalogs for each kind of card. Author and title cards may be interfiled in one catalog, with subject cards filed in a separate one. The catalog can be in card form, book form, microform, or recorded on a computer, perhaps requiring the patron to locate and use special equipment.

If the patron is searching for a known item, e.g., a book by Hannah Whitall Smith with the title The Christian's Secret of a Happy Life, it may be simple to locate through the library catalog. When, on the other hand, the patron knows only that the subject of the book is the Christian life, and that the name of the author may be Whitall, Whittle, Smith, or Smyth, the use of the catalog becomes more complex.

If faced with a problem such as this, the library patron will have at least three choices: (1) look through all of the "Smiths" or other possible variations of the author's last name in the catalog--a large task in even a small library; (2) search through all of the subject catalog entries under CHRISTIAN LIFE; or (3) seek help from the staff. In a small library, searching through all of the possible author and subject entries may not be too great a task, but in a large library, or in a specialized library such as that in a seminary, the entries may number in the hundreds. Even when using a computer-based catalog, the patron may be faced with screen after screen of entries through which to search. In a study made at the Library of Congress, for example, one subject file was found to contain over 1,200 entries before the subject was subdivided.¹ This would amount to between one and two catalog drawers of cards merely to represent the library's holdings on one subject.² While 1,200 cards may be the exception rather than the rule, a patron facing even a file of smaller size might be expected to resist making a potentially time-consuming search.

The growth patterns of typical library catalogs are reflected, on a large scale, by the growth of the catalogs

¹Harry J. Dubester, "Studies Related to Catalog Problems," in Library Catalogs: Changing Dimensions, edited by Ruth French Strout (Chicago, 1964), p. 102.

²Based on figures in Charles A. Goodrum, The Library of Congress (New York, 1974), p. 101.

of the Library of Congress. The first general catalog of the Library was an author catalog begun in 1881. It replaced a series of book catalogs which had been reissued some fifty-seven times between the years 1802-69. The 1881 catalog was comprised of handwritten records interfiled with records cut from the printed catalogs and pasted on slips of paper. This catalog was not available to the public. A new dictionary catalog, which for the first time included entries for subjects, was begun in 1898. By 1935, a separate room had to be built to accommodate the catalog. The annual report of the Librarian of Congress for 1953 showed that the Main Catalog was estimated to hold 8,770,000 cards.³ In 1963, the Main Catalog contained 12 million cards and was growing at an annual rate of 280,000 cards.⁴ By 1974, the Main Catalog had grown beyond expectation to 16.5 million cards housed in 21,077 card drawers filling four rooms, and was growing at an annual rate of 1.8 million cards.⁵

While the Library of Congress is the largest library in the United States, other libraries have experienced similar

³U.S. Library of Congress, Annual Report of the Librarian of Congress for the Fiscal Year Ending June 30, 1953 (Washington, D.C., 1954), pp. 35-36.

⁴John M. Cronin, "The National Union and Library of Congress Catalogs: Problems and Prospects," in Library Catalogs, ed. by Strout, pp. 88-89. Cf. Gilbert King, et al., Automation and the Library of Congress (Washington, D.C., 1963), p. 55, where King's group estimates annual growth of the catalog from 1961-72 at 100,000 cards per year for an eleven-year increase of 1.1 million cards.

⁵Goodrum, Library of Congress, p. 101.

growth patterns.⁶ Because of the cumulative nature of the catalog, the proliferation of cards leads to the build up of entries, especially in some sections of the subject portion of the catalog.

Background of the Problem

The subject catalog, or subject portions of a dictionary catalog, originated as an attempt to provide general access to the content of the materials in a library. Author and title entries, in contrast, exist mainly to help patrons locate materials for which they already have a citation. The dictionary form of subject catalog is typically a product of the United States. In Europe, two forms of "classed" catalogs tend to be available. One--Systematischer Katalog--shows according to some systematic subject classification the materials held by the library; the closest American parallel to this is the shelf list, which frequently is not accessible to patrons. The other--Schlagwortkatalog, or "catch-word" catalog--often utilizes a "key word in title" arrangement and thus more closely parallels the alphabetical subject catalog common in America.⁷ It is with the latter type of subject catalog and its entries that the present research deals.

⁶See Maurice F. Tauber, Technical Services in Libraries (New York, 1954), pp. 152-153.

⁷Cf. discussions in Felix Reichmann, "The Catalog in European Libraries," in Library Catalogs, ed. by Strout, pp. 40 ff., and Tauber, Technical Services, pp. 152-153.

In the United States, the expanded role of the subject catalog, in dictionary arrangement, led to a special emphasis on the role and purpose of subject headings. Charles A. Cutter delineated the function of the cataloger in relation to subject heading selection when he stated his rule of specific entry, namely, that the cataloger should "enter a work under its subject-heading, not under the heading of the class which includes the subject."⁸ Eaton, writing sixty years later, maintained that this rule is still the major principle of modern subject heading assignment.⁹ While the rule of specific entry has been fairly rigorously followed, the role and purpose of the heading itself has not been fully identified.

Frarey states that by 1960 there had been over 700 writings concerned with subject headings or the subject catalog in some way, only a small portion of which dealt with theory and purpose, rules, methods and techniques, or relationship to other instruments for information retrieval.¹⁰ There does seem to be some consensus, however, on what a subject heading is:

⁸Charles A. Cutter, Rules for a Dictionary Catalog, 4th ed. (Washington, D.C., 1904), p. 66.

⁹Thelma Eaton, Cataloging and Classification, An Introductory Manual, 4th ed. (Ann Arbor, 1967), pp. 152-153.

¹⁰Carlyle J. Frarey, "Subject Headings," in The State of the Library Art, vol. 1, pt. 2, edited by Ralph R. Shaw (New Brunswick, N.J., 1960), p. 7.

. . . a word or verbal expression deliberately chosen from among the various alternatives to express the particular content of the material which it describes and which will be (1) in harmony with the usage of the audience to whom it is addressed and (2) accurate and precise in its specification of the exact subject of the material.¹¹

Haykin asserts that, in like manner, the fundamental principle which guides the Library of Congress in developing and assigning subject headings is that "the reader is the focus in all cataloging principles and practices."¹² The job of the cataloger is, then, to choose an unambiguous term, one which does not overlap in meaning other headings in the catalog. This may require defining the sense in which the term is used as compared with, or even distinguished from, other closely related headings. Haykin emphasized Cutter's rule: "The heading should be as specific as the topic it is intended to cover."¹³

Lois Mai Chan's study indicates that Haykin's assertion relative to the reader is borne out. The principle of "convenience to the public" is seen to have played a very significant role in the development of subject headings and in the practice of subject cataloging. Chan sees this principle as holding precedence over any systematic or logical consideration. The major problem however, according to Chan, is to

¹¹Ibid., pp. 6-7.

¹²David Judson Haykin, Subject Headings: A Practical Guide (Washington, D.C., 1951), p. 7.

¹³Ibid., p. 9.

define the expectations of the user. The Library of Congress subject heading list was originally designed for one collection, that of the Library of Congress itself. Since it now serves as a general standard, there is increasing demand for consistency and uniformity.¹⁴

Frarey's complaint is that there really have been no significant studies to indicate who the users are or what their needs really are, except as they are indirectly related to the need for information.¹⁵ A search in Library Literature indicates that the situation which existed in 1960 has not been significantly altered in the intervening twenty years.

In like manner, Haykin's assertion still holds, that very little by way of objective, experimental data is available on the general approach of the reader to the subject element of the dictionary catalog. There is very little evidence to show what proportion of the users of the catalog employ it to find books by subject. . . . We need to know how the reader is affected by the internal structure of subject headings--types of subdivisions, methods of qualification.¹⁶

Karen Markey's study for OCLC, Inc. supports Haykin in this regard.¹⁷

¹⁴Lois Mai Chan, Library of Congress Subject Headings: Principles and Application (Littleton, Colo., 1978), pp. 23-24.

¹⁵Frarey, "Subject Headings," p. 6.

¹⁶Haykin, Subject Headings, p. 4.

¹⁷Cf. Karen Markey, Research Report on Analytical Review of Catalog Use Studies (Columbus, Ohio, 1980), pp. 15 ff.

Interest in the special topic of subject heading use in theological libraries has been furthered by two workshops on subject cataloging in theological libraries sponsored by the American Theological Library Association (ATLA) and underwritten in part by grants from the Rockefeller Foundation. The first of these workshops was held in 1976 in Washington, D.C., and the second in Princeton, N.J. in 1978.¹⁸ They were concerned in part with the problem of long subject file buildup. Among the results of the discussion sessions at the workshops were suggestions relating to the omission of some broad subject headings such as SERMONS, MEDITATIONS, and HYMNS (categories established according to the form of presentation of the material) as well as broad headings divided and subdivided by form, e.g., THEOLOGY, DOCTRINAL--HISTORY--ADDRESSES, ESSAYS, AND LECTURES; or HYMNS, ENGLISH--HISTORY AND CRITICISM--PROGRAMMED INSTRUCTION.

Recommendations for future consideration included the possibility of using published bibliographies to replace subject cards in the catalog. This recommendation, in the form of a position paper, came from Stephen Peterson, librarian at the Yale Divinity School.¹⁹ Those participating

¹⁸Doralyn J. Hickey, "American Theological Library Association Cataloging Workshop Report," ATLA Newsletter, XXIV (November 13, 1976), 51-56, and Doralyn J. Hickey, "Report of the Second Workshop on Subject Analysis," ATLA Newsletter, XXVI (August 19, 1978), 23-26.

¹⁹Hickey, "American Theological Library Association," p. 51.

in the second workshop found, however, that published bibliographies did not adequately cover the subject field of theology and religion, and thus could not fully replace the subject catalog approach.²⁰

Among the suggestions examined at the second workshop was introducing a chronological arrangement, by publication date, of records in a long subject file, a suggestion which dated at least back to Julia Pettee in this field in 1947.²¹ Various other suggestions dealt with the possibility of separating "popular works" from "scholarly works," or arranging records by religious tradition or viewpoint represented; but these concepts were regarded as being overly subjective and possibly placing selection criteria barriers in the way of patrons. Specific suggestions which generated enthusiasm were to (1) use Library of Congress subject headings to their fullest power, attempting to be as precise as possible in adding specific subdivisions; (2) eliminate the assignment of general headings in lieu of identifying specific topics for which terminology is difficult to ascertain, and avoid local shortening of Library of Congress headings; (3) consider separating the entries subdivided by broad topical or form headings according to the language of the text; and

²⁰Hickey, "Report of the Second Workshop," pp. 24-25.

²¹Julia Pettee, Subject Headings: the History and Theory of the Subject Approach to Books (New York, 1947), p. 122.

(4) consider possible elimination of broad topical headings subdivided only by form.²²

The questions that emerged in the workshop were raised by librarians with considerable knowledge and expertise in the field of theological bibliography. All participants were actively involved in theological librarianship as catalogers, reference librarians, or administrators of theological collections. These suggestions had not previously been tested with patrons, but were considered during the present study.

The problem areas of interest to this study are also, in part, those areas excluded from the subject analysis study completed by Jessica Lee Harris, namely, form subdivisions.²³ The Harris study failed to determine whether form divisions aid the patron, or merely further complicate the problem of the long undifferentiated subject file.

The use of form divisions did form a part of the investigation of O'Neill and Aluri for OCLC, Inc. in their study of subject heading patterns in OCLC monographic records. The pattern that they discovered indicated that the predominant practice was to assign a maximum of two headings per record. The most frequently assigned type of heading was topical; form, topical, and geographic subdivisions occurred with equal frequency; period subdivisions were less used.

²²Hickey, "Report of the Second Workshop," p. 23.

²³Jessica Lee Harris, Subject Analysis: Computer Implications of Rigorous Definition (Metuchen, N.J., 1970), pp. 48-52.

O'Neill and Aluri made no attempt, however, to assess the effect of subject heading assignment patterns on the use of the records.²⁴

The present study relies heavily on basic definitions and conclusions drawn by Ben-Ami Lipetz in his frequently cited study at Yale University. Lipetz outlined four fundamental types of catalog searches:

1. The document search. The user is seeking an item which is known to exist.
2. The subject search. The user is trying to identify and locate one or more documents on a known topic.
3. The author search. The user is aware of an author, series, etc., and seeks to identify and possibly select one or more documents from that author or other source.
4. The bibliographic search. The patron uses the catalog itself to supply or verify bibliographic information regarding a known document.²⁵

²⁴Edward T. O'Neill and Rao Aluri, Research Report on Subject Heading Patterns in OCLC Monographic Records (Columbus, Ohio, 1979), p. 18. This finding is consistent with that of Benedict Brooks and Frederick G. Kilgour in their 1964 study which found an average of 1.6 subject entries per title in their survey of the subject files of the Yale Medical Library. See their "Catalog Subject Searches in the Yale Medical Library," College and Research Libraries, VI (1964), 487. Cf. William H. Mischo, Technical Report on a Subject Retrieval Function for the Online Union Catalog (Dublin, Ohio, 1981), p. 5, in which Mischo reports findings of 1.4 and 1.7 subject headings assigned per work.

²⁵Ben-Ami Lipetz, User Requirements in Identifying Desired Works in a Large Library (New Haven, 1970), p. 43.

Lipetz discovered the following distribution of searches among types:²⁶

	Immediate	Underlying
Document searches	73%	56%
Subject searches	16%	33%
Author searches	6%	6%
Bibliographic searches	5%	5%

By immediate, Lipetz meant the immediate objective of the user of the catalog at the moment of his approach to the catalog, i.e., a document search. By underlying, he meant an indirect means of approach to the item. For example, the patron may do a document search but is really interested in a subject search. The patron may search first for information in a known document considered likely to contain the needed information, but the known document is not the exclusive objective of the search. In other words, patrons may not stop when they first find a known document.²⁷

A major finding of the Lipetz study was that underlying a significant percentage of the document searches was a subject search, using a known item on a subject to determine if that item could be used to find other, related items. This type of search appears to constitute a substitute for systematic examination of long subject files.

²⁶Ibid., p. 44.

²⁷Ibid., pp. 43-45.

Definitions

A long undifferentiated subject file is defined as any file which contains over 200 records under one subject heading with these records being distinguished from each other only by such characteristics as author, title, publisher, date of publication, or series relationship. According to Sidney L. Jackson's catalog use study reported in 1958, any such file is of dubious value to the user. The prospect of automating the catalog using machine-readable records is not seen of itself as solving the problem but only of gaining automation of a manual file.²⁸ Consulting an automated file of similar length is also expected to discourage the user.

A subject file differentiated only by form divisions is one which subdivides the records according to the physical or literary form of the material. Among such headings so regarded are:

ADDRESSES, ESSAYS, AND LECTURES
 ANECDOTES, FACETIAE, SATIRE, ETC.
 BIBLIOGRAPHY
 BIOGRAPHY
 CHURCH HISTORY
 COMMENTARIES
 FICTION
 HANDBOOKS, MANUALS, ETC.
 HISTORY
 PERIODICALS
 PHILOSOPHY
 SERMONS
 STUDY AND TEACHING²⁹

²⁸Sidney L. Jackson, Catalog Use Study (Chicago, 1958), p. 245.

²⁹U.S. Library of Congress, Library of Congress Subject Headings, 8th ed. (Washington, D.C., 1975), pp. xix-lxvii.

Such a file could also be created by using a second form division, e.g., UNITED STATES--CHURCH HISTORY--BIBLIOGRAPHY.

Assumptions and Hypotheses

Assumptions

There are certain characteristics of library materials that are employed when people select bibliographic records listed in long, undifferentiated subject files. These characteristics are not necessarily verbalized but can be discovered by appropriate questioning techniques. Once the characteristics are discovered, it may be possible to build them into the subject heading structure or file arrangement to create a bibliographic listing in a form more usable by the patron.

Hypotheses

The patron who seeks library materials on a particular topic and who encounters a long, undifferentiated subject file in the catalog will make a selection of bibliographic records based on the following elements. These elements may be categorized as objective (displayed directly by the record and requiring little or no interpretation) and subjective (recognized because of the user's special knowledge of the field).

- (1) Objective elements used by the patron are, in order of their importance:
 - (a) Complete title, including subtitle

- (b) Language of the title
 - (c) Date of issue
- (2) Subjective elements used are, in order of importance:
- (a) The reputation of the author or the issuing body
 - (b) The reputation of the publisher
 - (c) The patron's previous knowledge of the work
 - (d) The denomination of the author
 - (e) The patron's recognition of items in the "tracings" (i.e., other entries under which the record is listed in the catalog).
- (3) If the patron has special knowledge in the field, the subjective elements will be more important than the objective elements in making a selection.

Methodology

The subject catalog of the Graduate Theological Union Library in Berkeley, California, was sampled for determination of the extent of the problem of the undifferentiated subject file in theological libraries. A sample of 10 per cent of the catalog drawers actually in use at the time of the study was drawn. The method of selection of drawers was established by using a random number table, since the drawers were sequentially numbered. A count in each drawer selected was made to determine the number of subject headings used; the number of long, undifferentiated heading files in the drawer; the number of files using form subdivisions; and the number of cards in each type of file.

When this phase of the project was completed, use studies were made. These studies involved interviews with patrons regarding subject heading use. The interviewees were chosen from those actually using the catalogs, selecting library materials from the shelves, or studying at the tables and carrels in the library. An attempt was made to interview patrons at various times of the day and various days of the week. Fifty-five interviews were made, reflecting the various user groups of the library. Questions sought to determine the maximum length of card files for optimum use; use of and benefits derived from form division subject heading files; possible effects of rearrangement of the files; and, most importantly, which items of information are of major importance in selection of materials. Sample cards from the subject file were given to patrons to search, in order to determine their reaction to specific problem areas and to define and describe methods to solve the problem.

CHAPTER II

THE SETTING AND LENGTH OF FILE QUESTION

The problem of the long, undifferentiated subject file has been of major interest to theological librarians and their patrons. While suggestions have been made as to a possible reordering of the files of bibliographic records which would enable patrons to find materials that they need in a pattern preferred by the patron, no studies have been conducted that would indicate the pattern of preference. Related studies have been made, but no evidence is available that the pattern will hold in a graduate theological institution.

This chapter will describe the graduate theological institution chosen as a site for the study and characterize the library and its collections and catalogs. It will also indicate reasons for selecting this institution and show the results of the catalog study relative to the problem of length of file.

The Graduate Theological Union

The institution selected for this study is the Graduate Theological Union of Berkeley, California. The Graduate Theological Union (hereafter cited as GTU) had its origins in discussions among several San Francisco Bay Area theological

schools concerned about cooperation among various theological traditions. In 1962, GTU was incorporated jointly by Berkeley Baptist Divinity School (now American Baptist Seminary of the West), Church Divinity School of the Pacific (Protestant Episcopal), Pacific Lutheran Theological Seminary (Lutheran Church in America), and San Francisco Theological Seminary (United Presbyterian Church in the U.S.A.) as the common body for their doctoral programs. In 1964 an additional school joined, the Pacific School of Religion (Interdenominational), followed by St. Albert's College (Dominican), Starr King School for the Ministry (Unitarian-Universalist), Alma College (Society of Jesus), and the Franciscan School of Theology. Also a part of GTU are the Center for Urban-Black Studies, the Center of Judaic Studies, and the Institute of Lay Theology/School of Applied Theology (Jesuit).¹ GTU is a degree granting institution in itself, with programs at the master's and doctoral levels; the faculty at the doctoral level is drawn from the faculties of the individual schools. An independent Board of Trustees includes members nominated by the participating institutions.² GTU also works cooperatively with the Graduate Division of the University of

¹For the history of the Graduate Theological Union, see William John Minter, "The Impact of Interinstitutional Cooperation on Institutional Autonomy," unpublished doctoral dissertation, University of California, Berkeley, 1971.

²Elizabeth Kelley Bauer and Florence Noyce Wertz, editors, The Graduate Theological Union (Berkeley, 1970), pp. 1-2.

California, Berkeley, in offering two Ph.D. degrees and cross registration in other graduate programs. The programs of the Graduate Theological Union are accredited by the Western Association of Schools and Colleges and by the Association of Theological Schools in the United States and Canada. The combined faculties total approximately 125, and more than 1,200 students are enrolled in resident degree programs.³

Because of the unique eclectic nature of the Graduate Theological Union, its relationship to the University of California, and the size and distinction of the library's collection, GTU was chosen as the site of the sample and survey.

Since sharing library resources is often the way institutions begin working together to provide better educational services, it is fitting that this was the first step taken and the most fundamental change made at the Graduate Theological Union which affected institutional policy, procedures, and dollar commitments.⁴ From the beginning of GTU, a common library for the constituent schools was promoted.⁵ It was not, however, until 1981 that a central library building was

³The Graduate Theological Union (Berkeley, 1982), p. 7.

⁴Minter, "The Impact," p. 52.

⁵John B. McTaggart, "The Evolution and Continuing Program of the Graduate Theological Union Library," unpublished research paper, Delaware, Ohio, 1974, p. 39.

occupied and all of the collections merged.⁶ The library itself was formed on July 1, 1969, by all of the constituent schools with the exception of the Pacific School of Religion and the Starr King School for the Ministry. The Pacific School of Religion collection was merged with the Graduate Theological Union collection at the time of occupation of the present building, while a portion of the San Francisco Theological Seminary collection was retained on the San Anselmo campus for use by students there.⁷

The combined catalog of the constituent schools of GTU, along with holdings from the Golden Gate Baptist Theological Seminary in Mill Valley and those of St. Patrick's College in Menlo Park, was begun in 1963, with the establishment of the Graduate Theological Union Bibliographic Center. Until that time, separate catalogs were kept in the individual libraries, with each determining the scope and nature of its own records. In 1963, two catalogs were set up for the GTU Library. These were the "Author and Title Catalog" for the union catalog, and the "Subject Catalog." The "Author and Title Catalog" contains cards for all materials in the holdings of all constituent libraries, as well as other contributing libraries such as Golden Gate Seminary and St. Patrick's College. The "Subject Catalog" contains subject

⁶Graduate Theological Union Library Dedication, May 1, 1981 (Berkeley, 1981), unpagued.

⁷Ibid.

entries for only those materials processed by the Bibliographic Center, with the exception of the 20,000 volumes of the Pacific Lutheran collection. Since the library holdings are in excess of 350,000 volumes, the "Subject Catalog" would not be representative of the library holdings except for the fact that many thousands of older works have been reclassified and other thousands of older works purchased and classified as part of a special program.⁸ The present "Subject Catalog" thus contains subject cards for approximately 80,000 titles, and contains 289 drawers of cards.⁹

In 1964, it was determined that a common classification scheme, that of the Library of Congress, would be used for all library materials.¹⁰ Prior to that time, of the GTU libraries, only the library of the Pacific Lutheran Seminary used this classification scheme.¹¹

The population served by the Library for the 1980-81 academic year consisted of 1,438 students enrolled in the constituent schools of GTU and 241 faculty and staff members, with an additional 480 patrons being registered with the Library. Thus, 77.9 per cent of the population is directly

⁸McTaggart, "Evolution," pp. 14-15, 29.

⁹Interview with David Green, Assistant Librarian, GTU, April 6, 1982.

¹⁰Letter to A. J. Hyatt, Librarian, Golden Gate Seminary, from Stillson Judah, Librarian, Graduate Theological Union, September 8, 1964.

¹¹"Budgets of Other Libraries," unpublished paper, Berkeley, 1964, p. 1.

related to GTU, with 22.1 per cent of the registered patrons being from other groups.¹²

In a user survey taken by the staff of the GTU Library, the ratio remains quite similar, with borrower's cards being checked for the institution represented by each patron for the week of April 28 to May 4, 1981. Out of 1,033 borrowers, 913 patrons indicated their school affiliation. Of these, 751 or 82.3 per cent were students in GTU-related schools, while 162 or 17.7 per cent were not.¹³

In the survey taken for the present study, a total of 55 interviews was made in the GTU Library. Of these, 38 (69.1 per cent) were GTU-related patrons, with 17 (30.9 per cent) non-GTU-related.

The Length-of-File Question

Before the user interviews were made, and just prior to the moving of the catalogs to the new facility, a study of the subject catalog was conducted to determine the extent of the length-of-file problem which had precipitated the entire study. Using a random number table, trays were selected for investigation.¹⁴ Out of a total of 289 possible catalog

¹²See Appendix I for a breakdown of enrollment, and Appendix II for institutional relationships of patrons of the Library. Figures for faculty and staff are taken from the GTU Catalog for 1981, pp. 12-38 and 108-127.

¹³See Appendix III.

¹⁴Ray L. Carpenter and Ellen Story Vasu, Statistical Methods for Librarians (Chicago, 1978), pp. 96-97.

drawers, 28 were drawn having numbers falling between 1 and 289, 9.7 per cent of the drawers. In each drawer, cards were counted for each major heading and subheading. The results of this count are shown in Table I.

TABLE I

HEADINGS AND SUBHEADINGS IN THE SUBJECT CATALOG SAMPLE

Item	Number
Total Headings and Subheadings	5,453
Main Headings	1,634
Main Headings Subdivided	3,819
Non-duplicating Main Headings	2,071
Subheadings Only (No Undivided Main Headings)	423

For this study, major headings are defined as those main headings which exist in the catalog without subdivisions, i.e., direct headings such as CHRISTIAN LIFE. Subdivisions of main headings are defined as those headings used in the catalog which are composed of a main heading with a further subdivision breakdown, e.g., CHRISTIAN LIFE--BAPTIST AUTHORS. Non-duplicating main headings are the total of main headings used, whether subheadings are used or not. That is, CHRISTIAN LIFE as a main heading and CHRISTIAN LIFE--BAPTIST AUTHORS as a subdivided heading will count as one non-duplicating main heading for the purpose of this study. The category of subheadings only (no undivided main headings) is used for those subjects such as COMIC BOOKS, STRIPS, ETC.--

HISTORY AND CRITICISM where there are no catalog entries under COMIC BOOKS, STRIPS, ETC.

A separate tabulation was made in order to determine whether there was a build-up of cards evident in the file drawers. The results of this count are displayed in Table II. Estimates were also made to compare the sample to the entire catalog.

TABLE II
NUMBER OF CARDS IN THE SAMPLE

	Sample	Percentage of Total Sample	Estimated Catalog Size
Main Heading Only	8,805	42.05%	90,887
Main Heading Subdivided	12,136	57.95%	125,254
Total Cards	20,941	100%	216,141

A tabulation was then made of cards per entry, with a count made of the number of headings which contained over fifty cards per heading or subheading. The results of this count are recorded in Table III.

TABLE III
HEADINGS AND CARDS PER HEADING

Item	Number
Number of Subheadings in Catalog Sample	3,819
Number of Cards Under These Headings	12,136
Number of Subheadings Having Over 50 Cards Each	18

TABLE III Continued

Item	Number
Number of Cards Under Headings Having Over 50 Cards Per Heading	1,843
Estimated Percentage of Cards in Catalog Associated with 50-Card Files	15.2%
Percentage of Headings with 50 Cards or More Per Heading	0.5%

A count was also made of the number of cards per direct main heading to discover whether there was any difference of build-up among those headings that were not subdivided and those that do have a further breakdown. The results are recorded in Table IV.

TABLE IV

NUMBER OF CARDS PER MAIN HEADING

Item	Number
Number of Main Headings Used	1,634
Number of Cards Under These Headings	8,805
Number of Main Headings Having Over 50 Cards	34
Number of Cards Under Headings Having Over 50 Cards	3,717
Percentage of Cards Under Main Headings in Files of Over 50 Cards Per Heading	42.2%
Percentage of Total Headings in Study	0.6%

As shown in Tables I-IV there are a great number of headings used, but the average heading has under it only

3.8 cards. This figure is somewhat skewed, because there were files in the study which contained over 400 cards. For example, the file under the heading CHRISTIANITY--20TH CENTURY contained 424 cards and was the longest file. The longest file under an unsubdivided heading was that of THEOLOGY, DOCTRINAL, which contained 397 cards. While form headings comprised 52.4 per cent (2,001 headings) of the headings with subdivisions, they accounted for 60.4 per cent (7,330) of the cards. The longest form division subheading file in the study, however, contained only 162 cards (THEOLOGY, DOCTRINAL --ADDRESSES, ESSAYS, AND LECTURES). Thus, the main problem of the long, undifferentiated files is not necessarily with form division subheading files but with any type of file, whether differentiated by time period (CHRISTIANITY--20TH CENTURY) or undifferentiated (THEOLOGY, DOCTRINAL or BARTH, KARL).

A count was also made of the number of headings which have no more than two cards behind them. (See Table V.) There was a total of 2,949 such cards in the main headings with subheading category, out of a total of 12,136 cards, or 24.3 per cent of such cards. Also, there were an additional 1,205 cards out of 8,805 cards in the unsubdivided main heading category, or 13.7 per cent of the total. On the whole, the percentage of cards having no more than two cards per subject heading division was 19.8 per cent or 4,154 cards out of a total of 20,941 cards.

TABLE V
SUBJECT HEADING FILES WITH LESS THAN TWO CARDS

	No. of Cards	Percentage of Total Cards in Sample
Main Headings with Subdivisions	2,949	24.3%
Main Headings without Subdivisions	1,205	13.7%
Percentage of Total Cards in Study Having Two Cards or Less Per Heading		19.8%

These findings, extrapolated for the whole file, would amount to an impressive number of cards in this category. For example, based on an average of 750 cards per drawer, there would be 42,916 cards in the catalog filed under subject headings which contained less than two cards per entry.¹⁵ In like manner, the figure of those items having more than fifty cards per entry behind them would number 19,074 cards behind 186 entries of this length. This could amount to a considerable obstacle for the average library user.

¹⁵These figures are estimated by taking the 20,941 cards actually counted for this study and dividing the figure by the actual number of drawers counted, 28, and rounding to the nearest "ten" figure for an average of 750 cards per drawer. This figure of 750 cards per drawer is relatively close to that in the Library of Congress (noted in Chapter I) where an average of 782.8 cards per drawer was derived.

CHAPTER III

THE USER SURVEY

In order to obtain information about the way in which patrons use the library, and especially their use of the subject catalog, a survey instrument was designed. The first instrument was tested and refined at the Golden Gate Theological Seminary Library in Mill Valley, California. Five preliminary interviews were made between March 24 and 26, 1981.¹ As a result of these interviews, one question was changed and examples were added to the second question because of the ambiguous responses received that necessitated an unduly lengthy explanation of the question.² The final part of the interview, for which cards were photocopied from the catalog, will be discussed in the following chapter.

The interviews were made in various parts of the library at the Graduate Theological Union (GTU), with selection made from patrons studying at tables, in carrels, using the catalogs, or, most often, actually in the stacks searching for books or other materials. Because an attempt was made to select patrons who were actually using library materials rather than merely using the library as a study area, notice

¹See Appendix IV for a copy of this form.

²See Appendix V for a copy of this form.

was taken of the presence of library materials if the patron was studying at a table or carrel. Each interview was made personally by the researcher, and each interview was generally ten minutes in length. No patrons refused to participate in the interviews. Two interviews were not tabulated, since the patrons were using the library for the first time. Permission to interview was obtained in advance from the librarian, John David Baker-Batsel.

The interviews were made over a period of three and one-half months, from late April until early August 1981. The times of the interviews may be found in Table VI.

TABLE VI
TIME OF DAY OF INTERVIEWS

	Number of Interviews	Percentage of Total
Morning (8 A.M.--12 Noon)	17	30.9
Afternoon (12 Noon--6 P.M.)	25	45.5
Evening (6 P.M.--10 P.M.)	13	23.6

The interviews were also spread across various days of the week as shown in Table VII. An attempt was made to sample during most periods of time when the library was open, to obtain the widest possible sample. The results are as shown in Table VII.

TABLE VII
DAYS OF THE WEEK OF INTERVIEWS

	Number of Interviews	Percentage of Total
Monday	12	21.8
Tuesday	18	32.7
Wednesday	3	5.5
Thursday	15	27.3
Friday	2	3.6
Saturday	5	9.1

Of major import was the first question in regard to status or identification of the patron. It is this response which seeks to give validity to the entire interview process. Since the interviews at GTU compare favorably with the actual user population (as shown in Chapter II), no more than fifty-five interviews were deemed necessary. Questions in regard to frequency of use were asked, not only of library building use but also of use of the catalogs of the library, to determine any relationship between library use and particular library skills.

The next step in the process was to determine frequency of use of the building and its card files. During the period of time covered by the survey, the library physically relocated to a new facility. All interviews took place after the move, but the only possible effect of the move on the study would be associated with use of the subject file.

In the old library, the subject catalog was placed in an obscure location. (See Fig. 1.) In the new building, the subject catalog is much more accessible, and the location may eventually cause an increase in its use. (See Fig. 2.) Because of the newness of the building in relationship to the dates of the survey, however, there should have been little or no effect on users of the library at that time. A future study might be made to determine whether the more accessible location has had any effect on the catalog's use.

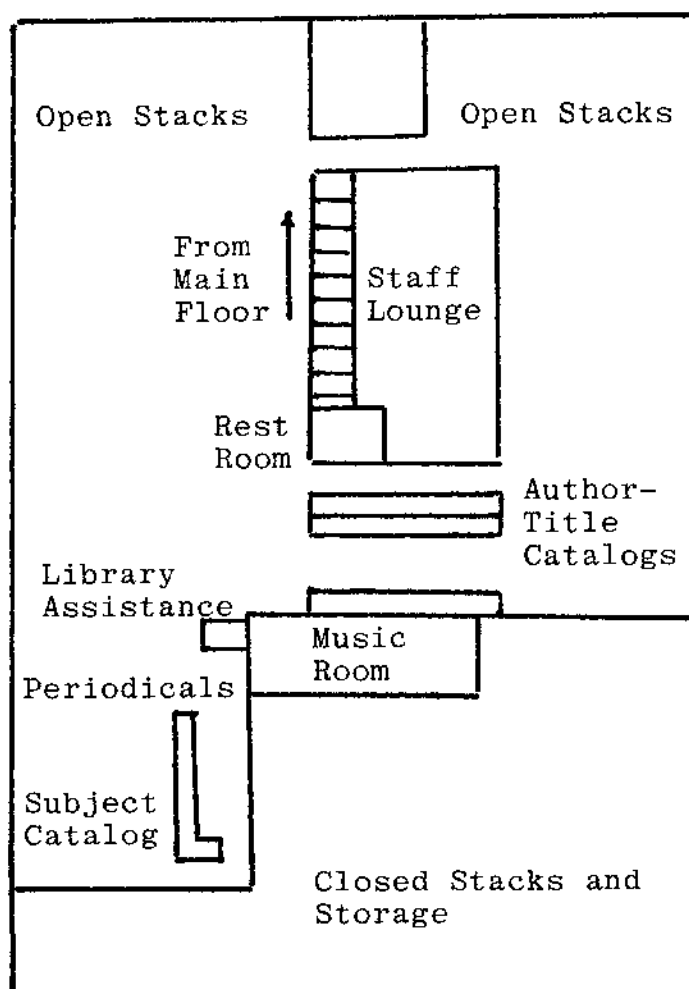


Fig. 1--Floor Plan of Old GTU Library (Lower Level)

Not to scale; based on author's observation.

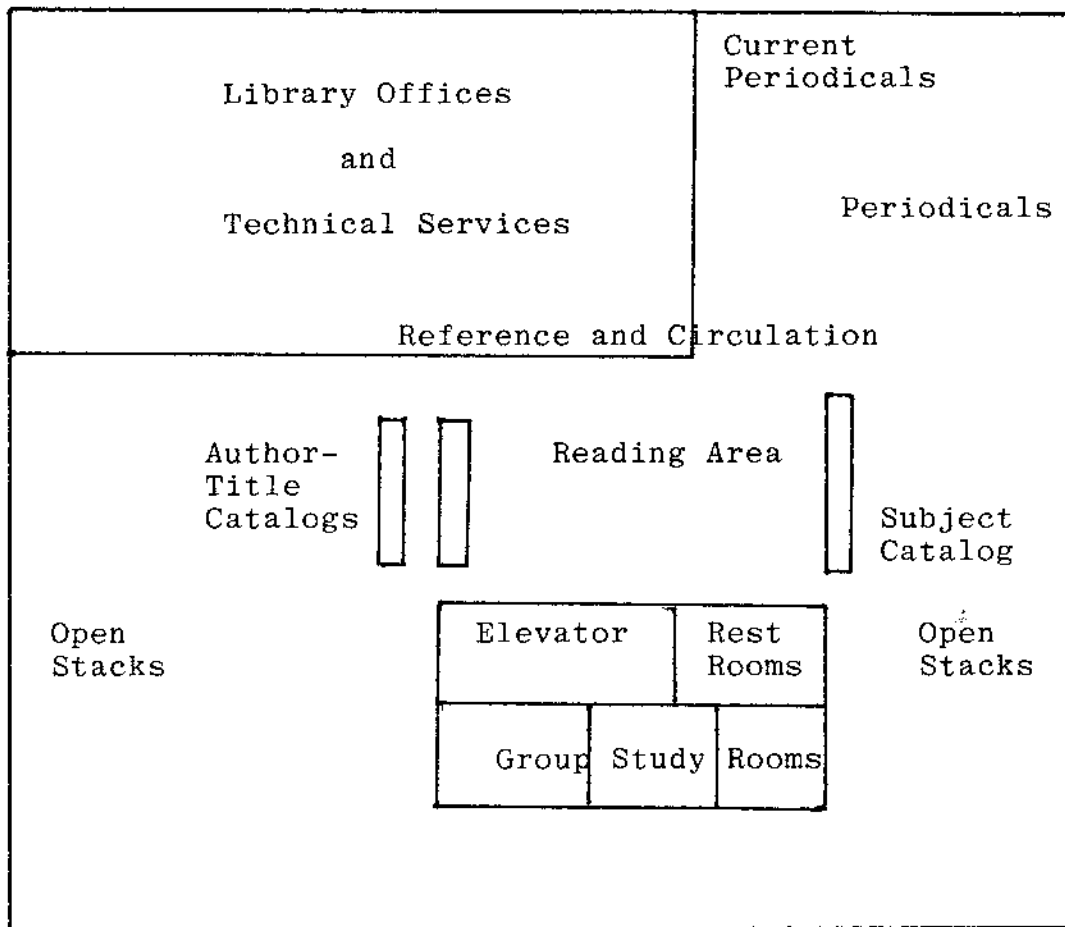


Fig. 2--Floor Plan of New GTU Library
Based on library handout, "Locations."

Frequency of Use of the Catalog

Of the fifty-five responses tabulated for this part of the study, the average patron's use of the library was 2.9 times per week. The range of patron use varied from seven times per year to ten times per week. (See Table VIII.)

TABLE VIII
USE OF THE GTU LIBRARY

Frequency of Use Times Per Week	Number of Users	Average Times Per Week
1	8	3.5
2	9	
3	5 ^a	
4	5	
5	10	
6		
7	1 ^b	
10	2	
Times Per Month		Average Times Per Week
1	3	0.6
2	7	
10	1	
Times Per Year		Average Times Per Week
7	1	0.1

^aTwo users reported between 2 and 3 times per week.

^bOne user reported between 6 and 7 times per week.

In similar fashion, responses to use of the Subject and Author/Title Catalogs were tabulated. The Author/Title Catalog received the most use, with the average patron using the file 1.4 times per week, or 48.3 per cent of the times during which the library is used. The range extended from three patrons who stated that they "never used the catalog," to one patron who stated that he used the catalog at least ten times per week. The pattern of use is shown in Table IX.

TABLE IX
USE OF THE AUTHOR/TITLE CATALOG

Frequency of Use Times Per Week	Number of Users	Average Times Per Week
1	13 ^a	2.5
2	5 ^b	
3		
4	2	
5	2	
9	1	
10	1	
Times Per Month		Average Times Per Week
1	6 ^c	0.5
2	8 ^d	
3	1 ^e	
5	1 ^e	
Times Per Year		Average Times Per Week
4	2	0.1
6	2	
7	1	
8	1	
"Never"	3	

- ^aTwo users reported between 1 and 2 uses per week.
^bOne user reported between 2 and 3 uses per week.
^cOne user reported between 1 and 2 uses per month.
^dOne user reported between 2 and 3 uses per month.
^eOne user reported between 3 and 4 uses per month.

The Subject Catalog is the lesser used of the files. Patrons consult this catalog an average of only 0.8 times per week, or only 27.6 per cent of the times during which the library is used. The distribution of use ranges from thirteen patrons who "never" or "rarely" use the Subject Catalog to only one who uses it at least five times each week. The complete pattern of use is shown in Table X.

TABLE X
USE OF THE SUBJECT CATALOG

Frequency of Use Times Per Week	Number of Users	Average Times Per Week
1	5 ^a	1.9
2	5 ^a	
3	0 ^b	
4	0 ^b	
5	1	
Times Per Month		Average Times Per Week
1	10	0.3
2	6 ^c	
Times Per Year		Average Times Per Week
1	1	0.1
2	1	
4	5 ^d	
6	1	
8	1	
9	1	
"Never" or "Rarely"	13	

^aTwo users reported between 1 and 2 uses per week.

^bOne user reported between 3 and 4 uses per week.

^cOne user reported between 1 and 2 uses per month.

^dOne user reported between 4 and 5 uses per year.

The results of the interviews indicate a much higher use of the Author/Title Catalog than of the Subject Catalog: 1.4 uses per week as opposed to 0.8 uses per week. The reasons for this may lie in the design of the file, as well as in its previous location. One patron stated that she did not know where the file was physically located and "would find it helpful in the future."

Length of Use of the Library

In response to the question of length of use of the GTU library, the fifty-five respondents indicated a wide range, from four persons who had been using the library for only one month to one who had been a user of the library and its catalogs for eighteen years. When the extremes of response are removed, the remaining forty-seven respondents showed an average of a little under two years (23.4 months) of use of the GTU library. (See Table XI.)

TABLE XI
LENGTH OF USE OF THE GTU LIBRARY

Months of Use	Users	Months of Use	Users
1	4	30	2
2	1	36	5
8	5	48	1
9	3	60	4
11	1	66	1
12	12	84	1
18	2	120	1
24	10	216	1

Length of Catalog Use Experience

In further response to the survey, a question was asked in regard to the length of time the patrons have been using card catalogs. The "average" response to this question was slightly less than sixteen years (15.9 years) of use. Since GTU is a graduate theological educational institution, this level of experience is not unexpected. The range of experience was from one patron who had been using library catalogs

for only three years to another who had forty-three years of catalog use experience. The range of this experience is indicated in Table XII.

TABLE XII
LENGTH OF CATALOG USE EXPERIENCE

Years of Use	Users	Years of Use	Users
3	1	17	2 ^b
4	1	18	5 ^b
5	1	20	6 ^c
7	2 ^a	21	1
8	4 ^a	22	2
9	1	25	2
10	6	28	2
11	1	30	1
12	5	35	1
15	5	43	1
16	2		

^aOne user indicated between 8 and 9 years of experience.

^bOne user indicated between 15 and 20 years of experience.

^cOne user indicated over 20 years of experience.

Where Catalog Use Was Learned

In response to the question as to where the patrons learned to use a card catalog, the group was fairly evenly divided, except that very few had received instruction or experience through the public library. It is interesting to note that approximately 70 per cent of the patrons credited their library training to elementary or secondary schools. Table XIII details the results of this inquiry.

TABLE XIII
WHERE CATALOG USE WAS LEARNED

Where Learned	Number of Patrons	Percentage
Elementary School	12	21.2
Junior High School	12	21.2
High School	15	27.3
College/University	12	21.2
Public Library	4	7.3

The population surveyed clearly has a long acquaintance with card catalogs. The respondents should thus be able to use catalogs with some skill or at least respond credibly to questions relating to the ways in which they use them.

Length of File

A question was also asked relative to the number of cards through which a patron would be willing to search in order to find material in the Subject Catalog. A substantial number of patrons, 20 per cent, stated that they would be willing to go through all of the cards in a file, whether or not the length was 200 cards or more. Of the patrons so responding, five were doctoral students, four were master's level students, one was an alumnus, and one was a staff member. Over 50 per cent of the patrons who stated that they would search the file at all (60.4 per cent of the total) stated that they would not search over fifty cards. It is

this group that is of major concern to the present study; however, those who would search more than fifty cards were used to help determine whether another arrangement of the files could make their searching easier. The results of this question are shown in Table XIV.

TABLE XIV
LENGTH OF SUBJECT FILE THAT PATRONS WILL SEARCH

Number of Cards	Number of Patrons	Percentage
1- 10	7	12.7
10- 25	7	12.7
25- 50	15	27.3
50-100	7	12.7
100-200	1	1.8
200+	11	20.0
Would Not Use at All	7	12.7

Figure 3 shows the relationship between the educational level of the patrons and the number of cards through which they are willing to search. Among other things, it demonstrates that five of the nine doctoral students interviewed stated that they would be willing to search through over 200 cards, while the majority of the master's level students (thirty-one out of forty) would not be willing to search through even a maximum of fifty cards. This finding may call

for a redefinition of a "long file," reducing it below the 200 card lower limit set by Sidney Jackson.³

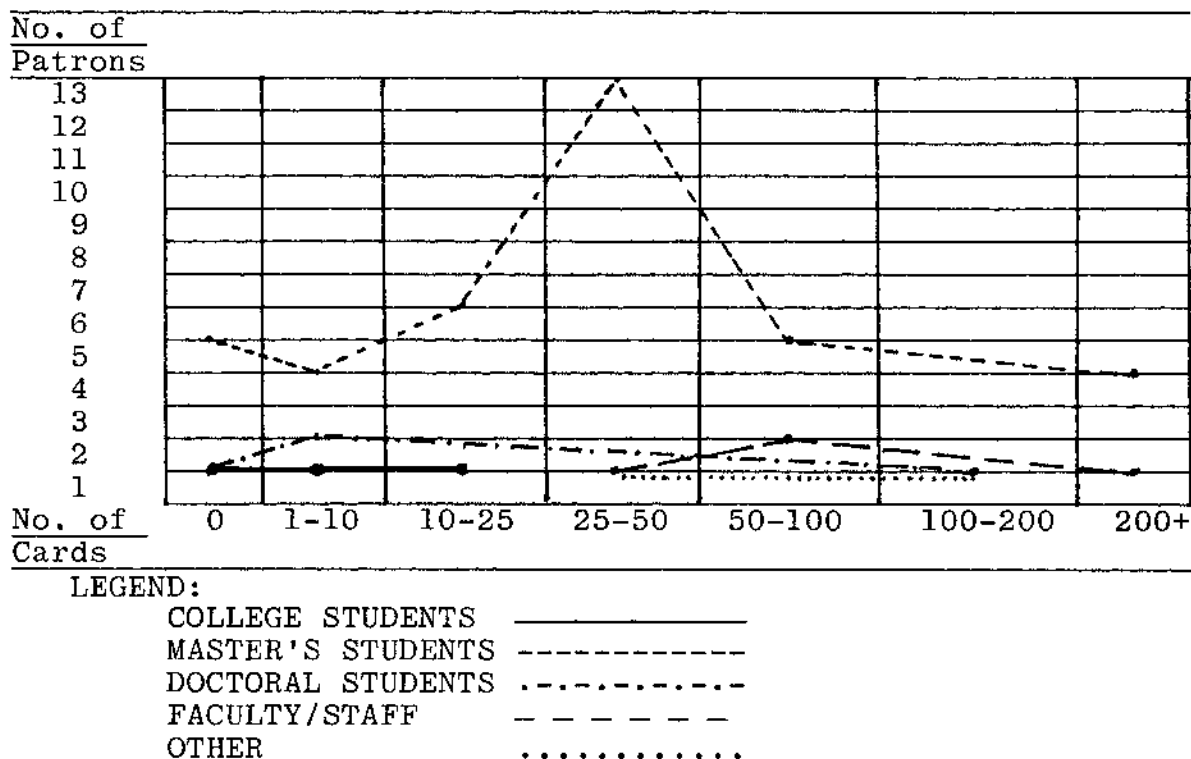


Fig. 3--Patron's educational level related to size of file searched.

All patrons responding to the question about file length were also asked which kind of topics they would search in this manner. Nine stated that they looked at familiar topics only in this way; eighteen stated that they searched new topics in this manner; eighteen stated that they searched all topics in this manner; and one stated that he searched broad topics only in this manner. Also, one student stated that he would search none in this way, while eight patrons either

³Jackson, Catalog Use Study, p. 245.

gave no response or stated that they would not use the file at all. (See Table XV.)

TABLE XV
TYPES OF TOPICS SEARCHED FOR BY PATRONS

Type of Topic	Number of Patrons	Percentage
New Topics	18	32.7
Familiar Topics Only	9	16.4
All Topics	18	32.7
Broad Topics Only	1	1.8
Search No Topics	1	1.8
No Response or Do Not Use File	8	14.5

Patrons who avoided the subject catalog or used it rarely were also asked a question about the way in which they obtained a subject approach without using the subject catalog. Multiple responses were solicited from these patrons. Five patrons who entirely avoid the catalog stated that they used published bibliographies, while fifteen patrons who rarely use the subject catalog stated that published bibliographies were a major source of information for them. Only four patrons who avoid the subject file stated that they relied on footnotes for a subject approach, as did three of the patrons who rarely used the subject catalog. All of the responses are shown in Table XVI. No single source seems to be preferred by these patrons, although there is some dependence on published bibliographies for such information.

TABLE XVI
 METHODS USED IN OBTAINING A SUBJECT APPROACH
 BY PATRONS WHO AVOID THE SUBJECT CATALOG

Methods or Items Used	No. of Patrons Avoiding Catalog	No. of Patrons Rarely Using Catalog
Published Bibliographies	5	15
Footnotes	4	3
Professors' Handouts	1	2
Go Directly to Stacks	1	5
Use No Subject Approach	3	0
Use Other Catalogs (UC, etc.)	1	0

Also asked of the patrons was whether any bibliographies were used in a systematic fashion. There were seventeen responses to this question, with eight of these answering in the affirmative. Of the bibliographies used, three were those assigned by professors, three were subject bibliographies, one had been prepared by a faculty member, and one used the Readers' Guide to Periodical Literature. The responses do not correlate well with the responses to the previous question in regard to published bibliographies as major sources for subject information. In the question regarding methods or items used in obtaining a subject approach by those avoiding the subject catalog, twenty persons stated that they used published bibliographies, but according to the subsequent question, only three of the respondents acknowledged that they used published bibliographies in any systematic fashion. In like manner, while three persons

responded to the first question in regard to professors' handouts, only one responded in similar fashion as to any systematic use of these handouts. No reliable conclusions can thus be drawn from the response to these two questions.

Eight persons answered the question about arrangement of the bibliography which they used, with five stating that it had an author/title arrangement, one a subject arrangement, one a "dictionary/alphabetical arrangement," and the last a chronological arrangement. No significance can be assigned to these responses because of the low number of responses and the lack of knowledge as to the specific bibliographies used. The patrons' statements cannot, therefore, be verified as to their perception of the arrangement.

The Catalog Card

In order to test the hypothesis relating to the objective characteristics of indexing library literature that people use to select materials under broad subject headings, a question was asked to determine the amount of such information on the card which is used by the patron. In response to this question, 49.1 per cent of the patrons stated that they used the main body of the card (author, title, imprint). An additional 30.9 per cent of respondents said that they used all of the information on the card, while 10.9 per cent would not use the card at all. Although 1.8 per cent of respondents stated that they would use all of the information except the tracings, 5.5 per cent said that they would use

only title, tracings, and call number. An additional 1.8 per cent indicated that they would use the title only. Table XVII displays the results of this question.

TABLE XVII
PORTIONS OF CATALOG CARD USED BY PATRONS

Portion of Card	Number of Respondents	Percentage
All of Card	17	30.9
Main Body	27	49.1
Title, Tracings, Call No.	3	5.5
Title Only	1	1.8
All Except Tracings	1	1.8
Would Not Use	6	10.9

Thus, it appears that a large majority of respondents (81.8 per cent) would use the major portion of objective information available through the catalog card.

In regard to specific items of information, a ranking of objective information was requested of the patrons. The results of this ranking are shown in Tables XVIII and XIX. Patrons were requested to rank each item from most important to least important.

In assessing the items described by the catalog cards, "key words" was used to refer to major words in the title, while "types of terms" referred to various descriptive terms used in the title, such as "introduction," "summary," "outline," or "history." Denomination indicated the denominational affiliation of the writer, with date referring to date

of publication or authorship. Language specified the language of the text of the book.

TABLE XVIII
RANKING OF ITEMS ON CATALOG CARD

Item	1	2	3	4	5	6	7	8	9
	Number of Patrons Ranking Each Item								
Author	15	11	8	7	2	1	1	0	0
Key Words	22	13	7	3	1	1	0	0	0
Previous Knowledge	2	10	14	6	5	1	1	1	1
Types of Terms	3	8	4	9	9	5	5	1	0
Publisher	0	0	0	4	3	9	8	14	2
Denomination	0	0	1	1	0	6	10	14	2
Date	1	2	8	2	11	8	9	2	0
Language	3	3	2	9	7	9	6	6	5
Tracings	1	1	1	3	1	4	13	5	14

TABLE XIX

MID-RANKS

Author	6.5 (1)	7.5 (1)	8.5 (1)
Key Words	6.5 (0)	7.5 (0)	8.5 (0)
Previous Knowledge	6.5 (1)	7.5 (1)	8.5 (1)
Types of Terms	6.5 (1)	7.5 (1)	8.5 (1)
Publisher	6.5 (1)	7.5 (5)	8.5 (1)
Denomination	6.5 (0)	7.5 (5)	8.5 (2)
Date	6.5 (1)	7.5 (3)	8.5 (0)
Language	6.5 (1)	7.5 (1)	8.5 (1)
Tracings	6.5 (1)	7.5 (3)	8.5 (1)

Where the rankings were incomplete, i.e., where less than nine rankings were made, mid-ranks were taken, resulting in rankings of 6.5, 7.5, or 8.5, with the numbers in parentheses referring to the number of mid-ranks taken in each category.

A cumulation of values, weighted by rank, was derived by multiplying the number of respondents by the rank, and adding up each rank for that item. The results of this ranking are

shown in Table XX, with the lowest cumulation having the highest rank order.

TABLE XX
RANK ORDER OF ITEMS ON CATALOG CARD

Rank	Item	Subjective/ Objective	Total Values Weighted by Rank	Average
1	Key Words	O	92	1.96
2	Author	S	126	2.68
3	Previous Knowledge	S	176	3.74
4	Types of Terms	O	207.5	4.41
5	Date	O	248	5.28
6	Language	O	250.5	5.33
7	Publisher	S	323.5	6.88
8	Tracings	S	341.5	7.27
9	Denomination	S	351.5	7.48

The formation of the title, i.e., the wording of the title, thus appears to be the most important factor in selecting materials from the subject file in this particular card catalog. This also supports the hypothesis that the complete title is the most important of the objective elements used by the patrons to select materials. The expected second-place objective element, however, was not validated. The expected item was language of the title, but this ranks only sixth among these patrons. Date of issue occupies a mid-ranking, third in rank order of the objective elements. A comparison will be made of these rankings with those in the final section of the survey to determine whether they reinforce each other.

The findings here recorded are based on the results of forty-seven patrons who responded to a portion of the

interview. Eight persons did not respond since they stated that they did not use the subject catalog at any time. Information from these individuals was gained, however, in the final section of the survey, and their responses will be included in the tally and comparison.

CHAPTER IV

THE CARD ELEMENT SURVEY

The final portion of the survey required respondents to handle physically and verbally respond to photocopies of cards from the card catalog. Three types of subject cards were selected for use in this survey, each chosen because of the large number of cards in each file. For the biographical section, the subject BARTH, KARL, 1886-1968 was chosen. For the biblical, form heading portion, BIBLE. O.T. GENESIS --COMMENTARIES was chosen. For the general subject heading portion, THEOLOGY, DOCTRINAL was selected. From each section, a group of cards was photocopied onto slips of paper, and these slips were then cut into catalog card size slips for easy manipulation. These slips were then handed to the patron, one subject heading group at a time. The patron was requested to look through the slips and tell the researcher which elements or items on the card would be of greatest or least value in selecting materials from this particular subject heading, and why this particular type of information would be important. The researcher did not prompt the patron, but wrote down responses and placed the responses into categories. When the categories matched those previously ranked by the respondents who use the subject catalog, they were so tabulated. The rankings, shown in Tables

XXI-XXIV, reflect only those categories specifically mentioned by the patrons. While all of those surveyed responded to this portion of the interview, no one item received more than thirty responses. The rankings indicate the number of responses to each item, but only those items mentioned as important by at least 20 per cent of the interviewees have been included.

In each file chosen, approximately 25 per cent of the cards were photocopied onto slips. In general, every fourth card would be photocopied, except in cases where the fourth card was an additional card for a title (second card, etc.) and did not contain full bibliographic information. The cards photocopied ranged in date of publication from 1835 to 1980; were in English, French, and German; and were published by at least 66 different publishers. A total of 181 slips was given to the patron, out of a possible 650 cards in this category.

Each patron was requested to look through each file separately and respond with those items which would be of most or least assistance to them in selecting materials on these subjects in this library. While several patrons stated that they would never look up these particular subjects, they were requested to approach the file as though a professor had given them an explicit assignment which required them to use such a subject file. No prompting seeking specific responses was made, though several patrons did make reference to the

portion of the interview which requested them to rank items on the card in order of importance.

Responses to the Biographical File

The first group of slips handed to the patron was the biographical entry group, BARTH, KARL, 1886-1968. This file consisted of 41 slips out of a possible 162 entries in the subject portion of the catalog. Responses to the Barth file are tabulated in Table XXI. Some of the patrons shuffled through the slips quickly and noted items of importance, in several cases rearranging the slips in order of importance. One notable response, which sixteen patrons gave, was that the language of the text was very important, but for the most part in a negative sense. Only one doctoral student noted this as a positive aspect of the file, for he had language ability in both French and German and needed to use materials in foreign languages. Several respondents, however, stated that if an item was noted as a translation into English, it would be of positive importance. One patron inquired about the ISBN and related information, and commented that he found that information most distracting. Another patron stated that he always preferred a commercially printed card over a typed card, and had decided that there must be some importance to the difference in the card as related to the importance of the book.

Several patrons expressed a dislike for microforms, while one indicated that if a note stated that the item was

mimeographed he would not use it. The most often mentioned item, however, was not the one that ranked overall in first place, but the "Key Words in Title" category, which ranked in second place. The item receiving the highest overall total in this subject area, weighted by ranking, was that of "Full Title." It was mentioned more often in first place, with patrons stating that the full title helped them in selecting materials, for it told them something about the scope of the work. Also mentioned was the fact that a general title, such as The Significance of Barth's Theology, was of little or no assistance, while inclusion of the subtitle, An Appraisal: with Special Reference to Election and Reconciliation, would be most helpful.

Of the Barth titles surveyed, the materials were in three languages, ranged in date from 1933 to 1979, and were published by thirty-one publishers. (See Appendix VI for examples.)

One patron noted that in the case of a biographical file, a later date of publication would be preferred over an earlier one, for the author would have the advantage of being better able to scrutinize a subject's work and set the work and life in better perspective. No similar responses concerning date were made for the other file categories.

TABLE XXI
 RESPONSES TO KARL BARTH FILE

Rank	Respondents	Total Cumulation	Average*	Item
1	24	33	1.38	Full Title
2	31	51	1.65	Key Words in Title
3	27	56	2.07	Author Recognition
4	16	36	2.25	Language of Text
5	13	34	2.54	Tracings
6	18	48	2.67	Notes
7	19	60	3.16	Date

*The average which gives the ranking is derived by dividing the total cumulation figure by the number of actual responses to that item.

Responses to the Bible File

The Bible file portion given to the patrons was the smallest of the three files photocopied, with twenty-three slips given out of a file of ninety-one entries. Because of the technical nature of this portion of the file, this type of file was selected for inclusion. Of the Bible entries, only two languages were represented, English and German; the files ranged in date from 1864 to 1977. Eighteen different publishers were represented. (See Appendix VII for examples.)

Date of publication was the most often mentioned item on the card, but no clear preference was given for later dates being of greater significance. (See Table XXII.) Several patrons noted that the date might be of greater significance in some areas of biblical study than in others because of

archaeological findings, but that, in the total view, later dates did not necessarily indicate better comprehension of the biblical text. One patron noted that the series to which a commentary belonged would be a significant item. While two patrons felt that the denomination to which a writer belonged would be quite significant, others found this to be the least important item of interest. One patron stated that the appearance of the card was important, and attached significance to the presence of three types of cards: typed, printed, and computer-output cards, with preference being given to printed cards. Two patrons indicated that they noted the length of a book in this category, and considered that the longer the book the better, in the biblical field.

TABLE XXII
RESPONSES TO BIBLE FILE

Rank	Respondents	Total Cumulation	Average	Item
1	25	42	1.68	Key Words in Title
2	24	43	1.79	Author Recognition
3	17	32	1.88	Full Title
4	30	65	2.17	Date
5	19	51	2.68	Publisher

Responses to the Theology File

The Theology file was the longest of the files selected for inclusion in this portion of the survey. It consisted of more than 397 entries in one drawer, with the file

continuing into a second drawer. One hundred-seventeen slips were photocopied and handed to patrons. (See Appendix VIII for examples.) Titles selected were in English only, and ranged in publication date from 1835 to 1980. Sixty-six different publishers were represented.

Responses to this file were more negative than to the other two files. (See Table XXIII.) One patron stated that he would probably rely on a bibliography for such an area as this, while another noted that he would seek help from the reference assistant for this topic. A third patron stated that he would get a call number for a book on this topic and then go directly to the shelves to browse. Other patrons indicated that they probably would not use this topic at all due to the breadth of the subject. One patron was quite firm in his declaration that he would not use this subject file at all.

TABLE XXIII
RESPONSES TO THEOLOGY FILE

Rank	Respondents	Total Cumulation	Average	Item
1	30	41	1.37	Author Recognition
2	15	22	1.47	Full Title
3	26	48	1.85	Key Words in Title
4	11	22	2.00	Notes
5	12	33	2.75	Date

For such a broad subject area, author recognition was considered to be the single most important item, selected so by the largest number of respondents, 30, to this question. The items "Full Title" and "Key Words in Title" followed in importance, with special attention given by patrons to the more complete title. Two patrons felt that contents notes were very important for a topic which is this broad, since contents notes would bring out individual essays in collections on this subject. Again, the appearance of the card was important to two of the patrons, with preference for printed cards over typed cards. Relationship to a series was mentioned as important by only two patrons, with one seeing this as a positive factor and the other viewing it as negative. No further information was given as to why a series was viewed in this manner. Three patrons noted the fact that an item was a microform as being of negative value. While the language of the text seems to have been of no consideration here, this may be accounted for by the fact that none of the slips in this group represented materials in languages other than English.

Comparison of Responses

In order to compare the findings of this section with those of the ranking survey completed in the earlier portion of the interview, a comparison was made between these sections. The results of the comparison indicate the overall rankings. (See Table XXIV.) The cumulative totals were

divided by the number of responses per section in which responses to those questions were made in order more faithfully to represent actual weight of response.

The rankings for "Key Words in Title" and "Full Title" have been merged, with the higher figure being used for ranking purposes. Rankings and cumulations were then listed to include the item "Notes" which did not appear in the earlier ranking but was mentioned sufficiently enough in the evaluation of photocopied slips to warrant inclusion in the final list. While "Key Words in Title" and "Full Title" are not synonymous, their importance to the respondents suggests that few users would be well served in a subject search by being provided with only an abbreviated version of the title.

TABLE XXIV
FINAL COMPARISON OF ITEMS

Rank on Slips	Item ^a	Initial Ranking
1	Key Words	1
2	Author Recognition	2
3	Date	5
4	Language of Text	6
5	Publisher	7
6	Previous Use	3
7	Tracings	8
8	Types of Terms	4
9	Denomination	9

^aBecause Notes was ranked #3 on the "slips" interview but was not asked on the initial ranking question, it was deleted as a category from this comparison.

In order to determine the relationships between these rankings, the Spearman's Rank-Order Correlation test was applied, with $r_s = 1 - \frac{6 \sum (D_i^2)}{n(n^2 - 1)}$. Using this formulation, D_i equals the difference in the rank order, and n equals the number of items ranked. In this formulation, r_s would have a maximum evaluation of +1 when the ranks were in complete correlation. Using the data from this study, a moderate level of correlation of .625 is determined. There is a perfect level of agreement at the highest and lowest levels, with complete agreement on the first two rankings, "Key Words" and "Author Recognition," and on the lowest ranking, "Denomination." None of the middle ranks yields perfect agreement.

Summary

The objective elements most used by the patrons were hypothesized to be complete title, language of the title, and date of issue. According to the survey, the elements most used by patrons were complete title and key words in title; date; with language of the title or text being the least used item.

The subjective elements which were expected to be important, based on the patron's special knowledge, were the reputation of the author or issuing body and reputation of the publisher. The patron's previous knowledge of the work, the denomination of the author, and the patron's recognition

of items in the "tracings" were expected to be lesser used items. Author recognition ranked highest of the subjective elements, and ranked in second place overall among both objective and subjective elements. However, recognition of the publisher did not rank as high as expected, scoring considerably below author recognition and behind previous use for a third place ranking in subjective elements. In the initial ranking, it placed seventh among all elements.

CHAPTER V

CONCLUSIONS

Results of the Study

In regard to the length of file question, it was hypothesized that long, undifferentiated subject files constitute a problem for the library user. It was found that there is a build-up of cards under certain subject headings. At least 0.5 per cent of the subject headings surveyed had more than fifty cards behind them, accounting for 15.2 per cent of the total number of cards. The average number of cards per heading in the file was 3.8. The longest file in the survey contained 424 cards. In a specialized library such as the Graduate Theological Union Library which uses Library of Congress Subject Headings to their fullest power, a large number of headings (4,154 or 76.18 per cent) had two or less cards per heading or subheading. This large number of headings with two or less cards per heading or subheading was not mentioned by the patrons surveyed as a barrier to their use of the subject catalog, while long, undifferentiated files did seem to present difficulties.

The average user of the GTU Library, according to the survey, visited the library 2.9 times per week. The author/title catalog was consulted 1.4 times per week, or 48.3 per cent of the time during which the library was used. The

subject catalog was consulted only 0.8 times per week, or 27.6 per cent of the time that the patron used the library. The average patron reached by the survey indicated a length of use of the GTU library as a little under two years (23.4 months). Length of catalog use experience was also surveyed, with the average experience totalling slightly less than sixteen years (15.9 years). This figure was not surprising in view of the fact that GTU is a graduate educational institution.

Patrons also responded to questions regarding their use of the amount of information available on the library card. Eighty per cent stated that they used at least the main body of the card, with 30.9 per cent indicating that they drew information from the entire card. Slightly more than 90 per cent would use at least the title of the work.

The objective elements hypothesized to be most used by the patrons were (1) complete title, (2) language of the title, and (3) date of issue, in that order. According to the results of the interviews and survey, the elements most used by patrons were (1) complete title (key words in the title in some cases), (2) date of issue, and (3) language of the title. This minor reordering of the results in relation to the hypotheses does not negate the importance of each of these items.

The subjective elements that were hypothesized as useful, based on the expected special knowledge of the patrons,

were (1) the reputation of the author or issuing body (author recognition) and (2) the reputation of the publisher. The patron's previous knowledge of the work, the denomination of the author, and the patron's recognition of items in the tracings listed on the card were expected to appear as lesser used items of information. The results bore out part of this hypothesis, for in first place was author recognition, as expected. Previous knowledge or use of the work, was, however, in second place, with the publisher's reputation in third place. Patron's recognition of items in the tracings ranked fourth, while the denomination of the writer placed fifth, a reversal of expectations. The low ranking of denominational connection would seem to indicate that those who have suggested rearrangement of the file according to denomination are not responding to an expressed need of the patrons, at least in a setting such as GTU. Reordering the file by date of publication was also not a high priority, with date being seen as relatively unimportant in the field of theology and religion, in contrast to other fields, especially the sciences.

The problem of build-up cannot be handled by "more of the same" approaches, for the GTU catalog uses the latest subject headings available from the Library of Congress and uses all headings as supplied. If close attention to full utilization of the diversity of headings available were not given, the problem would probably be worse. The only

solution appears to be to take a different approach to subject searching. Simply computerizing the present files will not address the problem, for the build-up that now exists in the card catalog would also exist in a computerized system.

Proposed Usage

The results of this study contain implications for persons who design automated retrieval systems for the library and information science field. A number of information retrieval systems are currently available that have numerous entry points for the patron. Some of these systems will need to be examined to determine how well they conform to the criteria uncovered by this study. The selection of certain items as access points will be critical in finding bibliographical information through library data bases.

In computerized files, the possibility of using several access points in combination appears to be the best approach to searching for materials by subject. In the theology area, for example, most patrons indicate that they use their recognition of the author as the first basis for choice, followed by key words in the title, notes, full title, and finally, publisher when searching through a long subject file. A slightly different sequence appears in the biographical and biblical subject areas.

In order to create a pattern of search keys that would satisfy all needs, the ability to combine elements would certainly be required; but in order to be able effectively

to combine subjective elements with objective ones, all available entries may have to be scanned. Since "Key Words in Title" is the predominant basis for sorting, a methodology which permits coordination of key words with other elements might be considered fundamental. This requires, however, that the patron either formulate in advance a list of relevant words to be coordinated with the subject heading or be provided with a list of key words to scan after completing an initial search to identify materials appropriate to a desired subject field. The computer program structure necessitated by each of these two approaches is likely to be quite different, with the former being somewhat simpler but the latter being more nearly parallel to the way that manual searches are conducted.

Full title entry was ranked in third place by participants in the survey, when it was categorized separately and not a part of "Key Words in Title." Because of the importance of this ranking, it appears that titles should be recorded in full to be of most assistance to the patron. The use of the second ranked item, "Author Recognition," as a sorting factor presumes on the part of the searcher either previous knowledge of the field or an ability to recognize desired authors when scanning all available entries associated with a subject.

To illustrate the possibilities of such a system, an example may be delineated for the subject BARTH, KARL. Using

Boolean logic, the subject can be paired with a delimiter, e.g., 1968+ as a publication date. This pairing results in obtaining a file containing all materials relating to Karl Barth published during or after 1968. A second delimiter can be used, eliminating all works not published in English, if this is desired. Once the file is sorted, subjective factors can be added. If the file is extensive, it may be necessary for the system to advise the user that the file contains more than, for example, 50 entries.

When the system encounters a file of 50 entries or more, the user may be presented with another "menu," similar to the following:

1. Display all entries, showing authors' names and full titles only;
2. Display all entries, showing authors' surnames and publishers' names only;
3. Display all entries, showing authors' names, full titles, and publishers' names;
4. Display all entries, with full bibliographic data, arranged by date of publication;
5. Display all entries, with full bibliographic data, arranged alphabetically by authors' names;
6. Display only those entries that have specific key words in their titles. (If this number is selected, you will have the opportunity when the next screen is displayed to list the key words that you wish to use in your search.)

If no date or language delimiters were used when the subject was initially searched, a resulting screen might be displayed when the file yields over 50 entries (or any number desired):

Your search yields more than 50 citations. If you wish, you may reduce the number by qualifying your search as follows:

1. Display only those entries that have a specific publication date or range of dates. (If this number is selected, you will have the opportunity when the next screen is displayed to enter the date or dates that you wish to use in your search.)
2. Display only those entries that are written in a specific language or languages. (If this number is selected, you will have the opportunity when the next screen is displayed to enter the language or languages that you wish to use in your search.)
3. Display those entries that are written in a specific language or languages and that have a specific publication date or range of dates. (If this number is selected, you will have the opportunity when the next screen is displayed to enter both the language(s) and the date(s) that you wish to use in your search.)

These suggested patterns would require the user progressively to reduce or rearrange the file by selecting combinations of the objective and subjective factors considered by the users in this survey to be of importance in a subject search. A "menu" approach could also be proposed for searching key word in context entries, with the context being the title. A program which makes both approaches possible would meet the needs of the majority of users sampled for this study. To obtain maximum coverage, the search would need, then, to allow the reduction or rearrangement of a long file by using key word(s) in context (the context

being the full title), date of publication, language of text, and publisher.¹

The findings of this study parallel those of the OCLC study by Neal K. Kaske and Nancy P. Sanders, in which "librarians and some special library users also suggested subject access using keyword in title."² This would also solve the problem of users who call for increasingly more specific headings. There is also a relationship to those who advocate the use of headings representing both book and chapter levels, as called for in the studies by Pauline Atherton.³ This proliferation of headings could be managed by Boolean logic in the search, if sufficient computer capacity is available and the cost of programming the system to respond in this way is affordable.

Relationship to Selected Existing Systems

One library information retrieval system that could help in meeting the major requirements uncovered by this study is the KWIC (Key Word in Context) program designed by

¹Cf. Neal K. Kaske and Nancy P. Sanders, "On-Line Subject Access: the Human Side of the Problem," RQ, XX (Fall 1980), 57, where date of publication is given as a "most mentioned item."

²Ibid., p. 56.

³See Pauline A. Atherton, "Books Are for Use," in Proceedings of the American Society for Information Sciences: the Information Age in Perspective (White Plains, N.Y., 1978), pp. 17-20, and Books Are for Use: Final Report of the Subject Access Project of the Council on Library Resources (Syracuse, N.Y., 1978).

the Laboratory for Computer Graphics and Spatial Analysis of the Harvard Graduate School of Design. Currently available for purchase, KWIC is a set of programs which can be used for subject retrieval in a library system. KWIC offers subject, author, title or key word access to any words in the title or subtitle of the citation. Ten categories of information are available for each citation. Subject descriptors can be assigned from currently available subject heading lists or from standard thesauri. Key words may be searched in both "in context" and "out of context" modes for each non-trivial word. Adjacent title words may also be used as single search items, e.g., Southern Baptist.

The Harvard program is available in PL/1 language, and requires use of an IBM 360/370 computer with at least 175K bytes of memory. Mode of operation is either interactive or batch, and a standard line printer can be used for producing paper copies of the desired information.⁴

There is at least one bibliographic network that allows for subject and title searching, namely, the RLIN II system. RLIN, the Research Libraries Information Network, offers a collection of computer programs and data supporting numerous library functions in varied institutional settings.⁵ The

⁴Harvard University, Graduate School of Design, Laboratory for Computer Graphics and Spatial Analysis, Lab-Log, 1980 (Cambridge, Mass., 1980), pp. 14-15.

⁵Research Libraries Group, Searching in RLIN II: User's Manual (Stanford, Calif., 1981), p. iv.

RLIN files, based on the MARC (Machine-readable Cataloging) format designed by the Library of Congress, contain records for six types of material: books, films, maps, sound recordings, musical scores, and serials. The records can be used for various purposes, including acquisitions, cataloging, reference, and interlibrary loan. The files themselves can be searched by personal and corporate name, publisher's name by using the ISBN prefix (or in the Recordings and Scores File, the name itself), subject, and combinations or portions of these data.

In a title search, the user may look for a complete title or any portion of it, and all key words in the title may be used as individual search components. For example, the user may key in "fin tw biblical," where "tw" means "title word." The system would then search the title file for all titles which include the word "biblical." All records could be displayed and would be available for printing. Title phrases can also be searched, by using "fin tp [title phrase] biblical hermeneutics," for example. The display would then indicate only those titles which include this phrase.⁶

If desired, the user may truncate and use only the beginning of a word, in order to obtain all forms of it. For example, using "fin tw bapt#," in a title word search, would locate all titles that contain either Baptist or baptism.

⁶Ibid., p. 15.

Truncation, while not necessarily creating inordinately long files in every case, can have the effect, if carried too far, of locating words that have too common a root. Length of the truncation is thus very important in enabling the system to distinguish between what is essential and extraneous to the search. For example, if the search listed above, "fin tw bap#," were further truncated to "fin tw ba#," many other titles would be indicated, including all those which contained the words baseball and Bavaria. Lengthening the truncation excludes such titles.

The system permits searching on personal name, title phrase or word, and subject phrase or subdivision, which are the major items revealed in the present survey as used by patrons to narrow a search. The subject search may be done in a similar fashion to the title search, with access permitted by complete word, phrase, or a truncation. The user may employ Boolean or logical operators to narrow or enlarge the search. A parenthetical addition may be inserted either to broaden or to restrict the search. For example, the command for an author search, "fin pe knox, ronald and (bentley, edmund or chesterton, gilbert)" would result in displaying all records that included, as authors, Ronald Knox and Edmund Bentley or Ronald Knox and Gilbert Chesterton, but not those which included only Bentley and Chesterton or any of the authors by themselves.⁷ In a like fashion, if the user

⁷Upper case letters are not generally used in RLIN searches.

specified "fin pe knox, ronald and not (bentley, edmund or chesterton, gilbert)," the search would exclude all entries which include Knox and Bentley or Knox and Chesterton.⁸

Such combination searching can be done in the subject and title fields as well, and can result in more closely defining the fields desired.

Combination searching can result in what is perhaps the most powerful feature of RLIN II as far as subject searching is concerned. It is possible in this system to combine an author search with either a title word or title phrase search, and also possible to combine an author search with a subject word or phrase search. While the combination is unlikely, it is also possible to combine a title word or phrase search with a subject word or phrase search. The most likely combinations would be a situation in which an author's name is partially known and a title is partially or imperfectly known. Such a combination would locate Ahlstrom's A Religious History of the American People if the search included portions of the name Ahlstrom and any major word of the title, such as History. If all that was known was that someone named Ahlstrom wrote a book about religion in America, the work could be identified by combining the proper Library of Congress subject heading with the author's name. These powerful Boolean operations constitute one of the major advantages of the RLIN II system.

⁸Searching in RLIN II, pp. 48-49.

For searching directly by subject, it is recommended by RLIN that the user begin by using terms drawn from Library of Congress Subject Headings. This is the standard list used for assigning subject headings in the RLIN II system. Subject searches can employ the main subject (using the indicator "sp") or a subdivision (using the indicator "sd"). For example, the search may be restricted to the subject "Germany" alone or be further narrowed by a subdivision, such as "Church history," in combination with it. Subdivisions can also be searched by themselves, but, as in the example of "Church history," may be too broad to be of assistance or may produce more records than the system can handle.⁹

One of the limitations of the RLIN system is that the searcher may not use publication date as an access point either by itself or in combination with other characteristics. Dates included in a subject heading, may, however, be searched. This does permit the user to restrict a subject search to a particular historical period, but not the date when the material was issued. Dates of birth and death in the author statement are also excluded from search use.¹⁰

Publishers' names may be used as access points if they are associated with an International Standard Book Number (ISBN) prefix. This necessarily restricts the search,

⁹Ibid., pp. 150-151.

¹⁰Ibid., p. 119.

especially when seeking materials published before the development of the ISBN.

Though the RLIN II system offers similar flexibility to the Key Word in Context (KWIC) approach, it does not satisfy all of the requirements of patron needs as delineated in this study. RLIN II does, however, offer a wider range of uses and choices of information than the KWIC system.

Future Considerations

The results of this study offer less guidance to libraries that do not have or plan to have computerized catalogs. It cannot be recommended, as a result of this study, that libraries rearrange their subject card files, at least in the areas of religious studies, by any specific characteristic such as publication date, denominational orientation, or publisher.

It is especially recommended that the planners of an on-line subject access system for the OCLC, Inc., database seriously consider the outcome of this study. Since this major database presently has no subject or key word search capability, it is recommended that an approach by key word as well as by subject heading be made available. It is further recommended that the system develop the capability which the RLIN II system has, namely, of allowing the use of Boolean operators so that combinations of author, title, and subject fields would be possible. The system should also be capable of delimiting the search by date and language. This

requirement would expand OCLC's search capability beyond that presently available through RLIN II. A subject approach which offers Boolean searching in both subject and title contexts would enable the searcher to obtain maximum subject access to the long files of the OCLC, Inc., database. With a "menu" approach for those items having over 50 entries, as has been outlined previously in this chapter, users would be permitted to choose the restrictions on the file that they define as of greatest importance in extracting relevant entries.

While there are many automated systems available to access data bases, local or national, at present none of these fulfills all patron requirements for subject searching. Many do meet the basic need of searching by key word or key subject word in titles and subject headings, but they do not offer refinement by date, language of text, or publisher (though the latter appears to be of least import). New systems are continually emerging, however, and present systems are undergoing modification. It is possible that this study will provide some incentive to the designers of those systems to offer search strategies incorporating the recommendations of this study.

APPENDICES

APPENDIX I

OPENING FALL ENROLLMENT

10/17/80

American Baptist Seminary of the West	M.Div. (New)	19
	M.Div. (Continuing)	31
	D.Min.	13
	M.M.A.	8
	Unclassified	<u>17</u>
	TOTAL	88
Church Divinity School of the Pacific	M.Div. (New)	28
	M.Div. (Continuing)	46
	Interns	7*
	M.T.S.	7
	Unclassified	<u>16</u>
	TOTAL	104
Dominican School of Philosophy and Theology	M.Div. (New)	16
	M.Div. (Continuing)	35
	M.A.	10
	Dip.Th. Studies (C.B.)	4
	Unclassified	<u>8</u>
	TOTAL	73
Franciscan School of Theology	M.Div. (New)	35
	M.Div. (Continuing)	21
	M.T.S.	32
	Unclassified	<u>41</u>
	TOTAL	129
Graduate Theological Union	Doctoral (New)	31
	Doctoral (Continuing)	165
	M.A. (New)	22
	M.A. (Continuing)	65
	M.A.F.C.C.	5
	M.A.P.C.	3
	Unclassified	<u>23</u>
	TOTAL	314

*Not in totals, off-campus.

Jesuit School of Theology at Berkeley	M.Div. (New)	25
	M.Div. (Continuing)	64
	ISW Certificates	38
	D.Min.	77*
	S.T.M./Th.M.	18
	Unclassified	25
	TOTAL	<u>170</u>
Pacific Lutheran Theological Seminary	M.Div. (New)	27
	M.Div. (Continuing)	51
	Interns	25*
	M.A.Th.	7
	D.Min.	44*
	Th.M.	3/13*
	Unclassified	9
TOTAL	<u>97</u>	
Pacific School of Religion	M.Div. (New)	26
	M.Div. (Continuing)	71
	M.A.	39
	Interns	10*
	Certificates	41
	D.Min.	23
	S.T.M.	1
	Unclassified	4
TOTAL	<u>205</u>	
School of Applied Theology	M.A.Ap.Th. (New)	25
	M.A.Ap.Th. (Continuing)	24*
	TOTAL	<u>25</u>
San Francisco Theological Seminary	M.Div. (New)	63
	M.Div. (Continuing)	94
	C.T.S. (M.A.)	4
	M.A.V.	151*
	Th.M.	3
	APS	630*
	Unclassified	17
TOTAL	<u>181</u>	
Starr King School for the Ministry	M.Div. (New)	16
	M.Div. (Continuing)	36
	TOTAL	<u>52</u>
	GRAND TOTAL	<u><u>1,438</u></u>

*Not in total, off-campus.

Source: Registrar, Graduate Theological Union

APPENDIX II

PATRONS ENROLLED AT GTU LIBRARY FOR 1980/81 BY AFFILIATION

INSTITUTION/ETC.	FACULTY/STAFF	STUDENT/OTHER
Univ. of California/Berkeley	39	261
Golden Gate Seminary	2	37
University of San Francisco	3	6
Pacific Union College	4	4
Fuller Seminary		8
Univ. of California/San Francisco	2	4
Holy Names College	3	2
New College	1	3
Stanford University		4
Univ. of California/Santa Cruz	1	2
St. Mary's College	3	
Lehrhaus Judaica	3	
Simpson College		3
San Jose State University	2	1
San Francisco State University	2	1
JFK University		3
San Francisco Baptist Seminary		2
Vista College		2
Mills College	2	
Visiting Scholars		14
Local Patrons		42
Other Institutions (1 patron each)	6	7
TOTALS	<u>74</u>	<u>406</u>

APPENDIX III

CIRCULATION SURVEY BY SCHOOL OF AFFILIATION OF BORROWER

28 April 1981 through 4 May 1981.

This week included the library dedication day, 1 May, when the library was open only 3 hours for circulation.

Circulation by day:

Tuesday, 28 April ---	170
Wednesday, 29 April -	163
Thursday, 30 April --	184
Friday, 1 May -----	48
Saturday, 2 May -----	152
Sunday, 3 May -----	51
Monday, 4 May -----	273

Circulation by school:

<u>School</u>	<u>Total</u>	<u>Percent</u>
American Baptist Seminary	18	1.7
Church Divinity School	94	9.1
Dominican School	25	2.4
Franciscan School	63	6.1
Jesuit School of Theology	73	7.0
Pacific Lutheran	69	6.7
Pacific School of Religion	214	20.6
San Francisco Theological	32	3.1
Starr King School	19	1.8
GTU	144	13.9
Staff	32	3.1
"CL" (Library card no. only, believed mostly UC Berkeley)	46	4.4
UC Berkeley	44	4.2
Golden Gate Seminary	26	2.5
Other	14	1.4
Not Stated	<u>124</u>	<u>12.0</u>
TOTALS	<u>1037</u>	<u>100.0</u>

SOURCE: David Green, GTU Library

APPENDIX IV

SURVEY FORM, FIRST DRAFT

Date _____ Time of day _____

INTRODUCTION: Hello, I'm Cecil White, Librarian at Golden Gate Seminary and a doctoral candidate at North Texas State University. I am working on a project dealing with the subject catalog, and would like a few minutes of your time, if you can spare them. I'm trying to determine ways in which people use the subject catalog, and how we can facilitate its use.

Status: GTU student _____ level _____ faculty _____ staff _____
 UC/Berkeley student _____ level _____ faculty _____
 staff _____
 Other seminary _____ student _____ level _____
 faculty _____ staff _____
 College/university _____ student _____
 level _____ faculty _____ staff _____
 Clergy _____ denomination _____ alumni _____ school _____
 Other _____

Use: frequency per week _____ per month _____ per year _____

Subject file frequency _____

Author/title file frequency _____

When and where did you learn to use the subject catalog/other catalogs? _____

How long have you been a user of this catalog? _____

If you avoid the catalog or use it rarely, how do you get a subject approach? bibliographies _____
 footnotes _____ other _____

Do you use any of these systematically? _____ name _____

What is the usual arrangement of your source? _____

When you use the subject file:

1. How many cards are you willing to look through to find what you need? 1-10 _____ 10-25 _____ 25-50 _____
 50-100 _____ 100-200 _____ 200+ _____

2. What topics do you approach in this way? _____

3. What calls your attention to the card you select?
(rank from 1-11)

author recognition _____
 key words in title _____
 previous knowledge of work _____
 types of terms in title (introduction, summary,
 etc.) _____
 publisher _____
 denominational association _____
 date _____
 language of text _____
 (Which languages other than English do you
 read? _____)
 bibliographic data _____
 tracings (subject headings and added entries at
 bottom of a card) _____
 level of work _____

How would you rate your knowledge of the field in which you
 are searching? excellent _____ good _____ fair _____
 novice _____

How much of the card do you usually use in selecting books
 from the subject file? _____

Would arranging the file by date of publication be of help
 to you? yes _____ no _____ no difference _____

Would arranging the file by denomination of writer be of
 help to you? yes _____ no _____

What would help you the most with this file? (Barth, Karl)

APPENDIX V

SURVEY FORM, FINAL DRAFT

Date_____ Time of day_____

INTRODUCTION: Hello, I'm Cecil White, Librarian at Golden Gate Seminary and a doctoral candidate at North Texas State University. I am working on a project dealing with the subject catalog, and would like a few minutes of your time, if you can spare them. I'm trying to determine ways in which people use the subject catalog, and how we can facilitate its use.

Status: GTU student_____ level_____ faculty_____ staff_____
 UC/Berkeley student_____ level_____ faculty_____ staff_____
 Other seminary_____ student_____ level_____ faculty_____ staff_____
 College/university_____ student_____ level_____ faculty_____ staff_____
 Clergy_____ denomination_____ alumni_____ school_____ Other_____

Library use: frequency per week_____ per month_____ per year_____

Subject file frequency_____

Author/title file frequency_____

When and where did you learn to use the subject catalog/other catalogs? _____

How long have you been a user of this catalog? _____

If you avoid the catalog or use it rarely, how do you get a subject approach? bibliographies_____ footnotes_____ other_____

Do you use any of these systematically? _____ name_____

What is the usual arrangement of your source? _____

When you use the subject file:

1. How many cards are you willing to look through to find what you need? 1-10_____ 10-25_____ 25-50_____ 50-100_____ 100-200_____ 200+_____

2. What topics do you approach in this way? _____

3. What calls your attention to the card you select?
(rank from 1-9)

author recognition _____
 key words in title _____
 previous knowledge of work _____
 types of terms in title (introduction, summary,
 etc.) _____
 publisher _____
 denominational association _____
 date _____
 language of text _____
 (Which languages other than English do you
 read? _____)
 tracings (subject headings and added entries at
 bottom of a card) _____

Are the subject fields in which you search areas of specialty
 or are they new fields? _____

How much of the card do you usually use in selecting books
 from the subject file? _____

Would arranging the file by date of publication be of help
 to you? yes _____ no _____

Would arranging the file by denomination of writer be of
 help to you? yes _____ no _____

What would help you the most in selecting books from this
 file?

Barth, Karl _____

Bible. Genesis. _____

Theology, Doctrinal _____

APPENDIX VI

SAMPLE SUBJECT HEADING CARDS: BIOGRAPHY

BARTH, KARL, 1886-1968
 Andrews, James F. 1936- comp.
 Karl Barth. Edith by James F. Andrews.- Contribu-
 tors: Daniel Jenkins, and others. St. Louis, Herder, 1969.
 ix, 119, 2 p. 18 cm. (The Christian critic series) 125
 Bibliography: p. 121.
 LC Coll.
 CSGTU-S

86

1. Barth, Karl, 1886-1968. 2. Jenkins, Daniel Thomas, 1914-
 BX4827.B3A63 220.4'0924 76-79294
 Library of Congress MARC
 (2)

BARTH, KARL, 1886-1968.

BX 4827 B3 A4 1980 CBGTU CBGTU-S
 Barth, Karl, 1886-1968.
 [Briefe. Bd. 6. Briefe 1961-1968.
 English]
 Letters, 1961-1968 / Karl Barth ;
 edited by Jürgen Fangmeier and Hinrich
 Stoevesandt ; translated and edited by
 Geoffrey W. Bromiley. -- Grand Rapids,
 Mich. : Eerdmans, c1981.
 xv, 382 p. ; 24 cm.
 Translation of Briefe 1961-1968.
 Includes indexes.
 Bibliography: p. 379-382.
 1. Theologians--Switzerland--
 Correspondence. 2. Barth, Karl, 1886-
 1968.
 GTU SU 820702 820630 CBGTU REP
 B000280 /BJD B* 26347474-g
 80-29140

BARTH, KARL, 1886-1968

BX 4827 B3 A3
 Barth, Karl, 1886-
 How I changed my mind. Introd. and epilogue by John
 D. Godsey. Richmond, John Knox Press, 1966.
 96 p. ports. 21 cm.
 Three autobiographical articles which first appeared in issues of
 the Christian century.
 Bibliography: p. 88-93.
 LC Coll.
 CSBT
 CSB
 CSAT

1. Barth, Karl, 1886- . Title.
 BX4827.B3A3 342094 66-17277

APPENDIX VII

SAMPLE SUBJECT HEADING CARDS: BIBLE

BIBLE. O.T. GENESIS--COMMENTARIES.

88

BS Bible. O.T. Genesis. English.
 1235 Revised. 1921.
 RS The Book of Genesis in the Revised
 1921 version / with introduction and notes
 by Herbert E. Ryle. -- Cambridge
 LC Coll. [Eng.] : University Press, 1921.
 CBGTG lxviii, 483 p., [6] leaves of plates
 : ill., 2 maps (fold., col.) ; 17 cm.
 -- (The Cambridge Bible for schools
 and colleges)

Includes index.
 Bibliography: p. lxxv-lxxvii.

1. Bible. O.T. Genesis--
 Commentaries.

GTU SU S10717 CBGTG
 L000790 /RRH A# 25485178

BIBLE. O.T. GENESIS--COMMENTARIES.

BS Cassuto, Umberto, 1883-1951.
 1235.3 [Perush 'al Sefer Bereshit. English]
 CB11 A commentary on the book of Genesis
 / by U. Cassuto ; translated from the
 LC Coll. Hebrew by Israel Abraham. --
 Jerusalem : Magnes Press, 1961-1964.
 CBGTG 2 v. ; 26 cm. -- (Publications of
 CB54c the Perry Foundation for Biblical
 Research in the Hebrew University of
 Jerusalem)

Translation of: (romanized: Perush
 'al Sefer Bereshit)
 Includes bibliographical references
 and index.
 CONTENTS: v. 1. From Adam to Noah.--
 v. 2. From Noah to Abraham, with an
 (Cont'd on next card)

GTU SU S00628 CBGTG
 L000337 /RRH A# 16677510
 W565-323

BIBLE. O.T. GENESIS--COMMENTARIES

Davis, John James, 1916-
 Paradise to prison -- Grand Rapids, Mich.,
 1975.

CCNG

APPENDIX VIII

SAMPLE SUBJECT HEADING CARDS: BROAD SUBJECT

THEOLOGY, DOCTRINAL

- BT Downname, John, d. 1652.
 70 The summe of sacred divinitie first briefly & methodically
 DC propounded; and then more largely & cleerely handled and
 1632a explained. London, W. Stansby [1630? Ann Arbor, Mich.,
 University Microfilms, 1966?]
 LC Coll. 351 p. 18cm.
 CSAF Photocopy of book in Folger Shakespeare Library.

1. Theology, Doctrinal. I. Title.

THEOLOGY, DOCTRINAL.

- BX Forell, George Wolfgang.
 4811 The Protestant faith / by George
 F65 Wolfgang Forell. -- With revi-
 1975 sions. -- Philadelphia : Fortress
 Press, 1975, c1960.
 xii, 308 p. ; 22 cm.
 Originally published by Prentice-
 Hall, Englewood Cliffs, N.J.
 LC Coll. Includes bibliographical refer-
 ences and index.
 ISBN 0-8006-1095-4
 1. Protestant churches--Doctrinal
 and controversial works. 2. Theology,
 Doctrinal. 3. Creeds. I.
 Title.
 BX4811.F65 1975 230 74-26341
 MARC
 Library of Congress
 02645 8 524386 © THE BAKER & TAYLOR CO 5301

THEOLOGY, DOCTRINAL

- BX Heppe, Heinrich Ludwig Julius, 1820-1879
 9422 Reformed dogmatics : set out and illustrated
 H46 from the sources / Heinrich Heppe. -- [New ed.]
 1950 / rev. and edited by Ernst Bizer ; foreword by
 Karl Barth ; English translation by G. T. Thom-
 LC son. -- Grand Rapids : Baker Book House, 1950.
 Coll. xiv, 721 p. ; 22 cm.

"The first edition appeared as volume 2 of
 Heppe's writings on reformed theology in the
 year 1861."

(Continued on next card)

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