

APPENDIX I
BIBLIOGRAPHY ON MECHANIZED LIBRARY PROCESSES

Compiled by Edward Mack McCormick

This bibliography contains 155 English-language items of literature on the mechanization of library processes. These processes include acquisitions, circulation control, handling of serials, selection of document copies, and intercommunication between libraries. Mechanized information retrieval is not included, i.e., subject searching by machine. Further, the common uses of data processing by libraries for such functions as payroll and accounting are not included.

Mechanized equipment includes punched-card accounting machines, computers, automatic typewriters, or automatic selection devices. All these devices involve machine-usable file media such as punched cards, magnetic tape, and punched paper tape. Thus ordinary typewriters and reproduction devices are not included. The use of edge-notched cards is also not included.

There is a table of contents on the following page.

The compiler collected this material in April 1963, for the Office of Science Information Service, National Science Foundation, Washington 25, D. C.

Organization of Bibliography

The bibliography itself is divided into eleven sections. In addition, two indexes are included.

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In the eleven sections the items are arranged in inverse chronological order. This facilitates examination of each section for the new items; items at the end of each section are generally only of historical interest. The items are numbered in one sequence in the eleven sections. The library location index refers only to single systems described individually in the items in the bibliography. Items which contain information on several systems are not included in this index. Thus, the systems described in sections 1 and 11 are not included but those in sections 3 through 10 are included.

1. Libraries and Automation

This section is concerned with general considerations in the automation of libraries. The items are primarily concerned with defining the library problem as related to automation or with the nature of the library of the future.

The items pertaining to the general library automation problem include items 5, 15, 16, 21, and 32. Item 32 is the often referenced article by Bush which includes the Memex concept. Professional implications for librarians are considered in 6, 11, and 20. The Patent Office as a special library is considered in 22 and 23.

Speculation as to the nature of the library of the future is contained in 1, 7, 9, and 13. In contrast, items 33 and 35 are interesting since they contain forecasts made 25 and 27 years ago.

1. Kemeny, John G. "A Library for 2000 A.D." In Martin Greenberger, ed., Management and the Computer of the Future. Cambridge, MIT Press, 1962, pp. 134-178.

2. Koriagin, Gretchen W. Experience in Man Machine Relationships in Library Mechanization (Engineering Paper No. 1495). Santa Monica, Douglas Missiles and Space Division, November 1962.

3. "Role of a Small-scale Computer Under Study at Library of Congress," Library Journal, 87:3417, Oct. 1, 1962.

4. Black, Donald V. "Library Mechanization," Sci-Tech News, 16:115-117, Fall 1962.

5. Schultheiss, Louis A. "Automation of Library Operations." In Proceedings of the 1961 Computer Applications Symposium. New York, The Macmillan Co., 1962, pp. 35-44.

6. Swanson, Don R. "Library Goals and the Role of Automation," Special Libraries, 53:466-471, October 1962.

7. Griffin, Marjorie. "Library of Tomorrow," Library Journal, 87:1555-1557, April 15, 1962.

8. White, Herbert S. Mechanized Information Processing and the Librarian (TP 62-1241). Kingston, N. Y., IBM Corporation, Data Systems Division, April 10, 1962.

9. Johnson, H. Thayne. "An Approach to the Library of the Future," Special Libraries, 53:79-85, February 1962.

10. Ruggles, Melville J. Mechanization and Automation in Russian Libraries. Washington, Council on Library Resources, Inc., 1961.

11. Shera, Jesse H. "Automation Without Fear," American Library Association Bulletin, 55:787-794, October 1961.

12. Connor, J. M. "Management Methods in Libraries; A Symposium - Office Machines and Appliances," Bulletin of the Medical Library Association, 49:534-540, October 1961.

13. Heilprin, Laurence B. "On the Information Problem Ahead," American Documentation, 12:6-14, January 1961.
14. Dubester, Henry J. "The Library of Congress Looks at Mechanization of Information Retrieval," In Edward A. Tomeski, Richard W. Westcott, and Mary Covington, ed., The Clarification, Unification and Integration of Information Storage and Retrieval, New York, Management Dynamics, P.P. Box 2864, Grand Central Station, 1961, pp. 37-45.
15. Clapp, Verner W. "Information Storage and Retrieval and the Problems of Libraries," American Documentation, 12:224-226, July 1961.
16. Clapp, Verner W. "The Computer in the Library," In Proceedings of the 1960 Computer Applications Symposium, New York, The Macmillan Co., 1961, pp. 35-44.
17. Casey, Robert S., et al. (eds). Punched Cards: Their Application to Science and Industry. 2d ed. New York, Reinhold Publishing Corporation, 1958.
18. Mohrhardt, Foster E. "Critique on Developments in the Mechanization of Information Systems," College and Research Libraries, 19:395-397, September 1958.
19. Trotier, Arnold H. (ed.) "Mechanization in Libraries," Library Trends, 5:191-308, October 1956.
20. Shaw, Ralph R. "Implications for Library Services," Library Quarterly, 25:344-355, October 1955.
21. Clapp, Verner W. "Implications for Documentation and the Organization of Knowledge," Library Quarterly, 25:356-362, October 1955.
22. Weaver, Warren. "The Patent Office Problem," American Documentation, 6:129-135, July 1955.
23. Bush, Vannevar. Report to the Secretary of Commerce by the Advisory Committee on Application of Machine to Patent Office Operations. Washington, D. C., U. S. Department of Commerce, Dec. 22, 1954.
24. Downs, Robert B. (ed.) "Current Trends in College and University Libraries," Library Trends, 1:3-165, July 1952.
25. Wright, Wyllis E. "Some Aspects of Technical Processes," Library Trends, 1:73-82, July 1952.
26. Shaw, Ralph R. "Management, Machines, and the Bibliographic Problems of the 20th Century," In Jesse H. Shera and Margaret E. Egan, ed., Bibliographic Organization, Chicago, University of Chicago Press, 1951, pp. 220-225.
27. Jamieson, D. R. "Mechanized Bibliographical Aid," Library Association Record, 53:216-321, July 1951.
28. Hardkopf, Jewel C. "Cybernetics and the Library," Library Journal, 76:999-1001, June 15, 1951.

29. Callander, T. E. "Punched Card Systems in the Public Library," Library Association Conference Papers, 1947, pp. 23-28.
30. Gates, Marguerite L. "Punched Cards for Library Records," Library Journal, 71:1783-1784, Dec. 15, 1946.
31. Callander, T. E. "Punched Cards Systems: Their Application to Library Technique," Library Association Record, 48:171-174, July 1946.
32. Bush, Vannevar. "As We May Think," Atlantic Monthly, 176:101-108, July 1945.
33. Shera, Jesse H. "Mechanical Aids in College and Research Libraries," American Library Association Bulletin, 32:818-819, Oct. 15, 1938.
34. Wight, Edward. "Methods and Techniques of Library Surveys," In Louis R. Wilson, ed., Library Trends, Chicago, University of Chicago Press, 1937.
35. Fair, Ethel M. "Inventions and Books—What of the Future?" Library Journal, 61:47-51, Jan. 15, 1936.

2. Machine Usable Records

Mechanization of library processes requires information in machine usable form. Many of the items in the sections referring to specific processes include this, i.e., sections 3 through 8. However, the items in this section pertain to general aspects of putting information into punched cards. Converting information into punched paper tape is included in section 9.

36. International Business Machines Corporation. General Information Manual: Mechanized Library Procedures (E20-8094). White Plains, N. Y., IBM Corp., Data Processing Division, 1962.
37. Davies, John. Library Studies No. 1 Methods of Punching Cards. Winchester, Hampshire, England, IBM British Laboratories, 1962.
38. International Business Machines Corporation. Reference Manual: Index Organization for Information Retrieval (C20-8062). White Plains, N. Y., IBM Corp., Data Processing Division, 1961.
39. Grems, Mandalay. "A Card Format for Reference Files in Information Processing," Communications of the ACM, 4:10, February 1961.
40. Luhn, Hans P. General Rules for Creating Machinable Records for Libraries and Special Reference Files. Yorktown Heights, N. Y., IBM Corp., Advanced Systems Development Division, 1960.

3. Acquisitions

The following items pertain to the use of mechanized equipment for the acquisitions process. In many ways this process is most closely related to the normal commercial application of data processing equipment. It will be noted that the oldest item in this bibliography, item 47, is in this section.

41. Juhlin, Alton P. "The Use of IBM Equipment in Order Procedures at Southern Illinois Library," Illinois Libraries, 44:587-592, November 1962.

42. Fetterman, Lois. "Mechanization of Magazine Orders," National Association of Secondary-School Principals Bulletin, 43:120-122, November 1959.

43. Young, H. H. "Use of Punched Cards in the Serials Acquisitions Department of the University of Texas," SLA Texas Chapter Bulletin, 11:1-3, 1959.

44. Butcher, S. J. "The Acquisition of Books," Library Association Record, 54:259-262, August 1952.

45. Keller, Alton H. "Book Records on Punched Cards," Library Journal, 71:1785-1786, Dec. 15, 1946.

46. Moffitt, Alexander. "Punched Card Records in Serials Acquisition," College and Research Libraries, 7:10-13, January 1946.

47. International Business Machines Corporation. Purchase Analysis Procedure—Boston Public Library. New York, IBM Corporation, 1934.

4. Circulation

Circulation control is a process often mechanized. Items 61 and 62, each published eleven years ago, report on 5 and 10 years experience with mechanized circulation systems.

48. International Business Machines Corporation. General Information Manual. IBM 357 Data Collection System (E20-8028). White Plains, N. Y., IBM Corp., n.d.

49. "Automated Circulation Procedures at Southern Illinois University," Library Journal, 88:1133, March 15, 1963.

50. Black, Donald V. and Cox, James R. IBM Circulation Control at the University of California Library, Los Angeles, A Preliminary Report. Los Angeles, University of California, March 1963.

51. McCord, John G. W. "A Data Processing System for Circulation Control at the Illinois State Library," Illinois Libraries, 44:603-607, November 1962.
52. Riggle, Stella-Margaret. "Automatic Journal Routing Using IBM Punched Cards," Special Libraries, 53:537-540, November 1962.
53. Williams, H. L., Jr. Library Periodicals Ordering Information and Routing: Operating Manual for Library Personnel. Albuquerque, N.M., Sandia Corporation, Aug. 31, 1962.
54. Birnbaum, Henry. General Information Manual. IBM Circulation Control at Brooklyn College Library (E20-0072). White Plains, N. Y., IBM Corp., Data Processing Division, 1960.
55. Stevenson, Chris G. "Control and Inventory of Classified Documents," Special Libraries, 51:499-500, November 1960.
56. Richardson, Wm. H. "Circulation Control," Special Libraries, 51:493-496, November 1960.
57. Booser, Ronald J. "Use of Data Processing Equipment for the Control and Circulation of Magazines," Special Libraries, 51:297-300, July-August 1960.
58. Waldron, Rodney K. "Will Circulation Librarians Become Obsolete?" Library Journal, 84:386-388, Feb. 1, 1959.
59. Duer, Margaret D. and Lewis, Clark S. "How We Use IBM," Library Journal, 78:1288-1289, August 1953.
60. Monkevich, Edward. "Public Library Mechanizes Book Loans," The Punched Card, 1:140-142, 1952-1953.
61. Klausner, Margaret H. "IBM Circulation Control," Library Journal, 77:2165-2168, Dec. 15, 1952.
62. Quigley, Margery C. "Ten Years of IBM," Library Journal, 78:1152-1157, July 1952.
63. Leyland, E. "Mechanized Book Issuing," Library Association Record, 52:112-115, April 1950.
64. Quigley, Margery. "Business Machines in a Public Library," American City, 60:101-102, 1945.
65. Pratt, E. Carl. "International Business Machines Use in Circulation Department, University of Florida Library," Library Journal, 67:302-303, April 1, 1942.
66. Quigley, Margery. "Library Facts from International Business Machine Cards," Library Journal, 66:1065-1067, Dec. 15, 1941.
67. Parker, Ralph H. "The Punched Card Method in Circulation Work," Library Journal, 61:903-905, Dec. 1, 1936.

5. Serials

In addition to the items in this section, there are items in other sections which are also pertinent to the serials handling process. For example, items 42, 43, and 46 report on acquisitions of serials; items 52, 53, and 57 are concerned with the routing of serials.

68. Vdovin, George, Voigt, Melvin J., Newman, David, and Perry, Clay. "Computer Processing of Serial Records," Library Resources and Technical Services, 7:71-80, Winter 1963.

69. "Computer Used in Operation of a University Library," Library Journal, 87:3015, Sept. 15, 1962.

70. University of California, San Diego. Report on Serials Computer Project: University Library and UCSD Computer Center. La Jolla, California, University of California, San Diego, July 1962.

71. McCann, Anne. "Applications of Machines to Library Techniques: Periodicals," American Documentation, 12:260-266, October 1961.

72. Anthony, L. J., and Hailstone, J. E. "Use of Punched Cards in Preparation of Lists of Periodicals," Aslib Proceedings, 12:348-360, October 1960.

73. Nicholson, Natalie, and Thurston, William. "Serials and Journals in the MIT Library," American Documentation, 9:304-307, October 1958.

6. Catalogs

Most of the items in this section report on individual experience in the generation of book catalogs. In addition, section 11 also includes survey information on book catalogs in items 142 and 143. Some of the items in section 7 also include automated book catalog production, for example items 98 and 106. Some systems in section 7 are also used for the production of 3" x 5" catalog cards, for example, 96, 101, and 106.

Note that items 76, 77, and 79 are concerned with the problem of mechanizing library filing procedures.

74. Wilkinson, W. A. "A Machine-Produced Book Catalog: Why, How, and What Next?" Special Libraries, 53:137-143, March 1963.

75. Richmond, Phyllis A. "A Short Title Catalog Made with IBM Tabulating Equipment," Library Resources and Technical Services, 7:81-90, Winter 1963.

76. Culbertson, Don S., Schultheiss, Louis A., Sieve, Arion and Boone, Donald. An Investigation into the Application of Data Processing to Library Filing Rules. Chicago, University of Chicago, Chicago Undergraduate Division, Dec. 5, 1962.

77. Gull, C. Dake. Automatic Authorship: The Impact of Electronics upon Cataloging Rules (Working Paper for International Conference on Cataloging Principles, Paris, October 9-18, 1961), Washington, General Electric Company, Information Systems Operation, October 1961.

78. Vertanes, Charles A. "Automation Raps at the Door of the Library Catalog," Special Libraries, 52:237-242, May-June 1961.

79. Gull, C. Dake. "How Will Electronic Information Systems Affect Cataloging Rules?" Library Resources and Technical Services, 5:135-139, Spring 1961.

80. Hewiston, Theodore. "The Book Catalog of the Los Angeles County Public Library: Its Function and Use," Library Resources and Technical Services, 4:228-232, Summer 1960.

81. MacQuarrie, Catherine, and Martin, Beryl L. "Book Catalog of the Los Angeles County Public Library: How it is Being Made," Library Resources and Technical Services, 4:208-227, Summer 1960.

82. Warheit, I. Albert. "Catalogs from Punch Cards," American Documentation, 10:254, July 1959.

83. MacQuarrie, Catherine. "IBM Book Catalog," Library Journal, 82:630-634, March 1, 1957.

84. Martin, Adella Fern. IBM Catalog for the King County Public Library (Unpublished Master's Thesis). Cleveland, Western Reserve University, Library School, 1953.

85. Alvord, Dorothy. "King County Public Library Does it with IBM," Pacific Northwest Library Association Quarterly, 16:123-132, April 1952.

86. Callander, T. E. "Machine Reproduction of Catalogue Entries," Library Association Record, 52:115-118, April 1950.

7. Other and Combined Processes

Most of the items in this section pertain to libraries which appear to be mechanizing two or more of the above processes. Further, they sometimes include other processes such as announcement, automatic dissemination, or information retrieval which are outside the scope of this bibliography. Also included are three items, 110, 111, and 113, reporting experience in mechanizing subject heading lists and indexes.

87. International Business Machines Corporation. Application Brief, Circulation Control and Related Applications at Decatur Public Library, Decatur, Illinois (K20-0106). White Plains, N. Y., IBM Corp., Data Processing Division, n.d.

88. Dean, Crowell. "Integrating a Library Machine System," Special Libraries Association Rio Grande Chapter Bulletin, 6:5-7, April 1963.

89. General Electric Company. The Medlars Story. Wasington, General Electric Co., Information Systems Operation, March 1963.

90. International Business Machines Corporation. IBM Advanced Systems Development and Research Library Procedure Manual. San Jose, Calif., IBM Corp., Advanced Systems Development Division, 1959 and subsequently including March 19, 1963.

91. Lockheed Georgia Company. Mechanization of Library Procedures (Project 163). Marietta, Ga., Lockheed Georgia Co., 1962.

92. Schultheiss, Louis, Culbertson, Don, and Heiliger, Edward M. Advanced Data Processing in the University Library. New York, The Scarecrow Press, Inc., 1962.

93. U. S. Atomic Energy Commission. "The Literature of Nuclear Science, Its Management and Use," In Proceedings of September 1-13, 1962, Conference (TID 7647). Oak Ridge, Tenn., U. S. Atomic Energy Commission, December 1962, pp. 164-206.

94. Howe, Mary T., and Weidner, Mary K. "Data Processing in the Decatur Public Library," Illinois Libraries, 44:593-597, November 1962.

95. Heiliger, Edward M. "Application of Advanced Data Processing Techniques to University Library Procedures," Special Libraries, 53:472-475, October 1962.

96. Carroll, Kenneth D., and Summit, Robert K. MATICO: Machine Applications to Technical Information Center Operations (Report 5-13-62-1). Sunnyvale, Calif., Lockheed Missiles and Space Company, September 1962.

97. "'Building Block' Approach Core of New Processing System for New Books, Technical Reports in Kingston Engineering Library," IBM Data System News, 1:4, Aug. 16, 1962.

98. Griffin, Hillis L. "The National Reactor Testing Station Technical Library," Pacific Northwest Library Association Quarterly, 26:199-204, July 1962.

99. Roach, John P., Jr. SATIRE: Computer Applications of Semiautomatic Technical Information Retrieval (SP-857). Paramus, N. J., System Development Corporation, July 26, 1962.

100. Parker, Ralph H. "Automatic Records System at the University of Missouri Library," College and Research Libraries, 23:231-232+, May 1962.

101. Koriagin, Gretchen W., and Bunnow, L. R. Mechanized Information Retrieval System for Douglas Aircraft Company, Inc.; Status Report (SM-39167) Santa Monica, Douglas Aircraft Company, Inc., January 1962.

102. Roach, John, Jr. SATIRE: The Technical Librarian's EAM Application of Semi-automatic Technical Information Retrieval (SP-595). Paramus, N. J., System Development Corporation, Dec. 28, 1961.

103. Howe, Mary T., and Weidner, Mary K. "Mechanization in Public Libraries; Data Processing Department in the Decatur Public Library," UNESCO Bulletin for Libraries, 15:317-321+, November 1961.

104. General Electric Company. A Final Report of Improving Information Flow in a University Library (Prepared under contract with the University of Illinois, Chicago Undergraduate Division). Washington, General Electric Company, Information Systems Operation, July 1961.

105. Turner, Lester D., and Kennedy, James H. System of Automatic Processing and Indexing of Reports (UCRL-6510). Livermore, Calif., University of California Radiation Laboratory, July 12, 1961.

106. Durkin, Robert E., and White, Herbert S. "Simultaneous Preparation of Library Catalogs for Manual and Machine Applications," Special Libraries, 52:231-237, May-June 1961.

107. National Library of Medicine. The National Library of Medicine Index Mechanization Project. Washington, National Library of Medicine, 1961. Also published in Bulletin of the Medical Library Association, 49:1-96, January 1961.

108. The Library of Congress. Mechanization of Services and Functions in the Library of Congress. Washington, The Library of Congress, 1960.

109. Ashley, Edwin M. "Clerical Automation," Library Journal, 82:1725-1729, July 1957.

110. Garfield, Eugene. "The Preparation of Printed Indexes by Automatic Punched-Card Techniques," American Documentation, 6:68-76, April 1955.

111. Garfield, Eugene. "Preparation of Subject Heading Lists by Automatic Punched-Card Techniques," Journal of Documentation, 10:1-10, March 1954.

112. Pike, J. R. "A Future for Mechanization," Library Association Record, 56:47-49, February 1954.

113. Garfield, Eugene. Preparation of Printed Indexes by Automatic Punched-Card Equipment—A Manual of Procedures. Baltimore, Johns Hopkins University, Medical Indexing Project, 1953.

114. Baatz, Wilmer H., and Stevens, M. E. "Machines at Work," Library Journal, 78:1277-1281, August 1953.

8. Document Replica Selection

Devices for finding replicas of documents (when each document is identified by a number which is known to the searcher) have been considered extensively in the literature. Only a few are included here. However, item 116 contains an extensive bibliography of 311 items which should be examined by those interested in this topic. There is no intent here to include all the work reported on microreproduction or the aspects of document selection associated with information retrieval devices or systems.

115. McMurray, James P. "The Bureau of Ships Rapid Selector System," American Documentation, 13:66-68, January 1962.

116. Bagg, Thomas C., and Stevens, Mary E. Information Selection Systems Retrieving Replica Copies: A State-of-the-Art Report (NBS Technical Note 157). Washington, Government Printing Office, Dec. 31, 1961.

117. Ball, Howard R. "The Rapid Selector—BuShips' Newest Information Retrieval Device," Navy Management Review, 5:10-11, April 1960.

118. Melcher, Daniel. "Primer in Machine Information Storage and Retrieval," Library Journal, 85:909-912, March 1, 1960.

119. Bowder, K., et. al. Technical Investigation of Elements of a Mechanized Library (EW-6680). Boston, AVCO Corporation, January 1960.

120. Williams, Gordon. "FLIP: Film Library Instantaneous Presentation," Library Resources and Technical Services, 2:278-281, Fall 1958.

9. Automatic Typewriter Uses

The previous items in this bibliography pertain generally to the use of punched cards in the mechanization of library processes. However, it is also possible to use punched paper tape equipment either as systems by themselves or in conjunction with other equipment such as computers. All items in this section except 123 are individual systems. In item 123 the general use of punched paper tape as a common media for information interchange is considered. Of course, some other libraries which use computers also use punched paper tape input. Examples are items 89, 96, 101 and 107 in section 7.

121. Bowron, A. W. "Automatic Typing in Book Processing Toronto Public Library," Canadian Library, 19:10-11, July 1962.

122. "Electronic Tape-activated Typewriter Used for Automatic Catalog Card Processing," Law Library Journal, 53:508, November 1960.

123. Mooers, Calvin N. "The Tape Typewriter Plan: A Method for Cooperation in Documentation," Aslib Proceedings, 12:277-291, August 1960.

124. Johnson, Noel W. "Automated Catalog Card Reproduction," Library Journal, 85:725-726, Feb. 15, 1960.

125. Lockett, George R. "Partial Library Automation with the Flexowriter Writing Machine," Library Resources and Technical Services, 1:207-210, Fall 1957.

126. Witty, Francis J. "Flexowriter and Catalog Card Reproduction: Perfect Solution for Short Runs?" District of Columbia Libraries, 28:2-4, July 1957.

127. Becker, Joseph. Short Run Methods of Catalog Card Duplication; A Preliminary Survey, (Unpublished master's dissertation). Washington, The Catholic University of America, Department of Library Science, 1955.

10. Interlibrary Communication

Another area for possible mechanization is that involved in the communication of information between libraries. This included facsimile, interchange of data on communication lines, or, as in item 129 simply the use of Telautograph. Although item 131 refers generally to intra-library communication, the same techniques are applicable to interlibrary communication.

128. Roach, John P., Jr. SATIRE: Remote Communications Subsystem: A Feasibility Study (SP 1130). Paramus, N. J., System Development Corporation, March 18, 1963.

129. Kennedy, R. A. "Long-Distance, Longhand Library Records," Sci-Tech News, 14:37-38⁺, Summer 1960.

130. King, Ellis F. "Electronic Transmission for Inter-library Loans," American Documentation, 11:32-39, January 1960.

131. International Business Machines Corporation. General Information Manual. IBM Tele-Processing in Circulation Control at Public Libraries (E20-8040 and E20-0077). White Plains, N. Y., IBM Corporation 1959 and 1960.

132. Bristol R. P. Card Turner Problems; Preliminary Investigation of the Feasibility of Long-distance Consultation of Card Catalogs. Charlottesville, Virginia, University of Virginia, Alderman Library, 1958.

133. Bacon, F. R. et. al. Final Report to Council on Library Resources. Application of a Telereference System to Divisional Library Card Catalogs. A Feasibility Analysis. Ann Arbor, University of Michigan, Engineering Research Institute, May 1958.

134. Adams, Scott. "Library Communications System," Library Trends, 5:206-215, October 1956.

135. Adams, Scott. "Facsimile for Federal Libraries," Special Libraries, 44:169-172, May-June 1953.

11. Bibliographies and Surveys

The two recent bibliographies, items 137 and 139, are large; the latter contains 1550 items. Although oriented primarily toward information retrieval, each contains items on mechanization of library processes. Item 149 has relatively little on library processes. Item 138 contains information on 87 operational information systems. The last section of it includes systems for producing bibliographies and indexes. Items 146, 147, and 151 provide thorough surveys of mechanized library processes. Although outdated, item 151 includes a good system for classifying these applications.

136. Kraft, Donald H. "Data Processing Equipment for Library Use in Clerical Tasks and Dissemination of Information," Illinois Libraries, 44:587-592, November 1962.

137. Balz, Charles F., and Stanwood, Richard. Literature on Information Retrieval and Machine Translation. Owego, N. Y., IBM Corporation, Federal Systems Division, November 1962.

138. National Science Foundation. Nonconventional Technical Information Systems in Current Use, No. 3. Washington, National Science Foundation, October 1962.

139. Spangler, Marshall. General Bibliography on Information Storage and Retrieval, Revised. Phoenix, General Electric Company, Oct. 1, 1962.

140. Heller, Elmer W., and Hobbs, Charles D. A Survey of Information Retrieval Equipment (SP-642). Santa Monica, System Development Corporation, Dec. 15, 1961.

141. Davis, H. D. Analysis of the Periodical Literature Dealing with Automation in Scientific and Technical Libraries (Unpublished master's thesis). Atlanta, Ga., Atlanta University, 1961.

142. Griffin, Marjorie. "Printed Book Catalogs," Revue de la Documentation, 28:8-17, February 1961.

143. Griffin, Marjorie. "Printed Book Catalogs," Special Libraries, 51:496-499, November 1960.

144. Davies, John. "Punched Cards in the Library and Information Fields," Aslib Proceedings, 12:101-108, March 1960.

145. Beckwith, Herbert Henry. Applications of Automatic Punched Card and Digital Machines in Libraries (Unpublished master's thesis). Chapel Hill, N. C., University of North Carolina, 1959.

146. Dewey, Harry. "Punched Card Catalogs-Theory and Technique," American Documentation, 10:36-50, January 1959.

147. Berry, Madeline M. "Application of Punched Cards to Library Routines," In Robert S. Casey, ed. et. al. Punched Cards: Their Application to Science and Industry, 2d Edition, New York, Reinhold Publishing Corporation, 1958, pp. 279-302.

148. Voigt, Melvin J. "Trend Toward Mechanization in Libraries," Library Trends, 5:193-204, October 1956.

149. Loftus, Helen E., and Kent, Allen. "Automation in the Library - An Annotated Bibliography," American Documentation, 7:110-126, April 1956.

150. Gull, C. Dake. "Instrumentation," Library Trends, 2:103-126, July 1953.

151. Parker, Ralph H. Library Applications of Punched Cards: A Description of Mechanical Systems. Chicago, American Library Association, 1952.

152. Coblans, Herbert. "Some Notes on American Practice in Documentation," Journal of Documentation, 6:206-212, December 1950.

153. Blasingame, Ralph U. Application of IBM's in Libraries (Unpublished master's thesis). New York, Columbia University, School of Library Service, 1949.

154. Stokes, Katherine. "Library Applications of Punched Card Systems," Special Libraries, 38:204-208, September 1947.

155. Gull, C. Dake. "A Summary of Applications of Punched Cards as They Affect Special Libraries," Special Libraries, 38:208-212, September 1947.