

ABSTRACTS

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On the Development of Social Science Information and Documentation Services (Interim Report). Final Report on Mechanized Information Services in the University Library. Phase I—Planning. Part II. By Ralph Bisco. Los Angeles: UCLA, Institute of Library Research, 1967. 88 p. (LI 000 504, available from Clearinghouse for Federal Scientific and Technical Information, as PB 178-442, MF—\$0.65 HC—\$3.00).

This paper concerns information services by libraries for social scientists. A brief survey is made of the present state of both computers and telecommunication equipment. Projected information transfer networks are described, with emphasis on the role libraries are expected to play in them. Empirical studies of user needs are described in some detail and their implications are explored. The special needs of social scientists are emphasized. An eight-point program is presented for immediate improvement of library services through mechanized computer information services. To meet the various needs of social scientists libraries must improve access to their present store of printed materials and microforms, and they must develop capabilities to service "fugitive" materials such as conference papers and proceedings. They can usefully add a capability to acquire and provide access to banks of quantitative, empirical social science data. A bibliography of 169 items related to the content of the paper is included.

Development Program for a Center for Information Sciences. Final Report on Mechanized Information Services in the University Library. Phase I—Planning. Part 9. Los Angeles: UCLA, Institute for Library Research, 1967. 41 p. (LI 000 502, available from Clearinghouse for

Federal Scientific and Technical Information, as PB 178-442, MF—\$0.65 HC—\$3.00).

The development of mechanized information services in a university library has the following design goals: (1) the center for information services should be operational, (2) it should be a general purpose system, (3) it should be adaptable, (4) it should be replicative, (5) it should encourage increased receptivity and use, and (6) it should be designed so that library personnel can operate it. Implementation of such a library service requires the development of operating computer programs, the organization of an appropriate administrative structure, and the installation of adequate but economic computing machinery. This part of the final report discusses the developmental program for each of these issues. It is estimated that four years will be required to complete the succeeding three phases: phase 2—detailed system design, phase 3—programming and test, and phase 4—implementation and initial operation. Particular attention is given to the tasks involved in phase 2.

The Harvard Library, 1966-1976, Report of a Planning Study . . . Cambridge: Harvard University Library, 1966. 90 p. (ED 024 409, MF—\$0.50 HC—\$3.68).

The decade 1966-1976 and its implications for the Harvard University Library are the subject of this report. The problems examined include library collection policies, the impact of computers and other technical innovations on the library's operations and services, availability of additional resources and possible savings through interlibrary cooperation, and questions of personnel, space, and finance. One major conclusion of the report is that an annex to Widener should be constructed. A

second conclusion is that by 1975/76 an additional \$2,100,000 per year over the 1964/65 budget will be needed to purchase library materials, as well as an additional \$6,800,000 for other library expenditures. Appendix A provides tables and charts describing various aspects of the Harvard Library's operations by years from 1953/54 with extrapolations to 1975/76. Appendix B gives statements on individual units of the library.

The Library and Human Memory. Final Report on Mechanized Information Services in the University Library. Phase I—Planning. Part 13. By Donald A. Norman. Los Angeles: UCLA, Institute of Library Research, 1967. 22 p. (LI 000 506, available from Clearinghouse for Federal Scientific and Technical Information, as PB 178-442, MF—\$0.65 HC—\$3.00).

This paper discusses the differences between the storage problems encountered in a large library and those encountered in the human memory. Some of the properties of the human memory system and some of the major issues which affect the interaction between human users and the existing library systems are outlined. The problem of browsing is used as an exemplar of these properties. Five operations in human information processing are described: (1) sensory transduction, (2) attention and acquisition, (3) short-term memory, (4) long-term memory, and (5) retrieval. A description of a program, Scope Editor, used for editing simple manuscripts and programs, is used as an illustration of the form of recommended interaction which can occur between the user and the automated library. A suggestion is made to enlarge this, giving the worker at his own desk immediate access to the entire library collection. It then becomes possible to contemplate giving every user the equivalent of his own personal research librarian, his own personal files, and his own personal references without detriment to others, provided the new techniques are applied with imagination and, above all, with understanding of the powers and limits of human beings.

The Library of Congress as the National Library; Potentialities for Service. A Report to the National Advisory Commission on Libraries. Washington: Library of Congress, 1967. 74 p. (ED 025 286, MF—\$0.50 HC—\$3.04).

This report presents a statement of the Library of Congress's view of its position as the National Library of the United States. The library has developed from a small parliamentary library to serve the Congress to a library that performs more national-library functions than any national library in the world. Its organizational position in the Legislative Branch has not and need not inhibit its further development as a national library, but legislation to recognize its present *de facto* national-library role would be beneficial, as would a permanent commission on libraries and information to point up national needs and to advocate solutions and funding. Fifteen functions which the library might expand or undertake, if it were recognized as the *de jure* national library and were supported accordingly, are listed and suggestions regarding necessary action to enable the library to carry out the expanded services are made. The most important proposals of the last decade for a national "information system" are outlined and the distinction made in these proposals between libraries and library systems on the one hand and evaluation and retrieval systems on the other is rejected. The library sees the basic problem in an effective national library and information network as an access problem. The access problem is essentially a file problem, *i.e.*, one of bibliographic control, on which the library is making inroads through its program to automate its central bibliographic record.

Preliminary Specifications (Hardware and Software) for a Center for Information Services. Final Report on Mechanized Information Services in the University Library. Phase I—Planning. Part 10. Los Angeles: UCLA, Institute of Library Research, 1967. 43 p. (LI 000 503, available from Clearinghouse for Federal Scientific and Technical Information, as PB 178-442, MF—\$0.65 HC—\$3.00).

The general conclusions of the planning study on Mechanized Information Services in the University Library are that such services represent a desirable, even necessary, extension of the library's traditional functions. Preliminary specifications for such a library-based "Center for Information Services" (CIS) are presented in this report. Covered are three sets of issues: (1) administrative issues, including the organization of the CIS within the library, its administrative relationship to other campus activities, its staffing, its method of operation, its service load, and its financing; (2) hardware issues, including the library/CIS computer configuration, its requirements for space, and its relationship to other campus computing facilities; (3) software issues, including the requirements for generalized programs to handle file management and search, reference retrieval, text processing, numerical processing, and on-line processing.

A Small College Information System: an Analysis and Recommendations. By Anne W. Schumacher. St. Paul: Hamline University Library, 1968. 157 p. ED 024 488, MF—\$0.75 HC—\$6.36).

This study was undertaken to provide a detailed look at the functions currently being performed by a small, liberal arts college library and to develop some recommendations concerning its future role. The major questions studied in the report are (1) how satisfactory is the present library facility in supporting the information-related activities engaged in by members of the faculty and student body? and (2) if the library facility is not providing adequate support, what alternative solutions are feasible? Data on three components of the information system—the users, the library, and external sources—were collected by means of structured interviews, observation, published materials, and research reports and studies. The basic recommendation of the report is for a fundamental shift in the college library's role from an information storage facility to an information switching center.

New Directions for the City University Libraries; Papers Presented at an Insti-

tute (New York, April 18, 1968). By Betty-Carol Sellen and Sharad Karkhanis, eds. New York: Library Association of the City University of New York, 1968. 81 p. (LI 001 253, MF—\$0.50 HC—\$3.32).

The purpose of this institute was to consider the ways in which various phases of interlibrary cooperation could be developed in a large and geographically scattered system composed of many once autonomous units which have developed independently up to the present. Attending the institute were librarians from the City University of New York and other large academic libraries in the area as well as administrators and other college librarians interested in inter-library cooperation. Papers presented at the institute discussed: (1) the library complex in the State University of New York and the various cooperative projects and plans in that system; (2) the unification of the City University and how it will affect the building of physical facilities, including libraries; (3) research library cooperation on a national level; and (4) the cooperative programs between the University of North Carolina and Duke University as examples of library cooperation in a metropolitan area. Appended is a selective bibliography of twenty-four items on library cooperation.

Joint Design and Development of Library Systems. Final Report on Mechanized Information Services in the University Library. Phase I—Planning. Part 12. By Ralph M. Shoffner. Los Angeles: UCLA, Institute of Library Research, 1967. 35 p. (LI 000 505, available from Clearinghouse for Federal Scientific and Technical Information, as PB 178-442, MF—\$0.65 HC—\$3.00).

This is a summary report on the symposium on "Joint Design and Development of Library Systems." The major result of the symposium was a plan whereby in return for the funding necessary to support meetings of and informal communications among a small project team of individuals working in different library systems currently in the process of mechanization of some clerical process, the team would put

their results—systems design, computer programs, operations manuals—on deposit for use by others. A final design and implementation report would also be written. The program specifications, general features of it, and operation and initiation of the project are discussed in detail. Key issues are presented with a brief characterization of the various possible answers as well as the consensus of the group concerning each.

A Pilot—An On-Line Library Acquisition System. By Francis Spigai and others. Corvallis: Oregon State University Computer Center, 1968. 117 p. (ED 024 410, MF—\$0.50 HC—\$4.76).

This report presents documentation of files, of file organization, and of forty-two of the modular program subroutines used in a pilot project devised by the Oregon State University (OSU) Computer Center to simulate procedures in the Acquisitions Department of the OSU Library. A total of 224 bibliographically verified

requests for monographs, thirty vendor names and addresses, and sixty-two campus departments having library fund allocations comprise the three files constituting the main data base for the pilot project. Fixed field formats are used for bibliographic input; the vendor file uses a variable field input. Searching is on both fixed and variable lengths and the initial methods of accessing elements in the files are through table lookup, sequential match, and algorithmic search and retrieval strategies. The modes of interaction among the computer configuration, the programming system and the user in the project are on-line, real-time, time-sharing, and conversational. Documentation of programs in this report assumes the use of a cathode ray tube terminal as the input/output device; however, these same programs have since been modified for use on the teletypewriter. An area of programming not included is the algorithmic search used for locating the main entry.

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