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ABSTRACT

The fourth year of full-scale operation (June 1968 to June 1969) of the Institute of Library Research is reported. The projects undertaken during this period fall within five broad areas: (1) values in library and information service, (2) library and information systems, (3) methodology research, (4) information services development and (5) social and professional issues. (See LI 003314 for the bi-annual report of the second and third years of full-scale operation of the Institute.) (Author/NH)

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INSTITUTE OF LIBRARY RESEARCH  
ANNUAL REPORT  
July 1968 - June 1969

R. M. Hayes  
M. E. Maron

30 June 1969

Institute of Library Research  
University of California  
Los Angeles and Berkeley, California

LI 003 313

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## ABSTRACT

This "Annual Report, July 1968 to June 1969" is the third progress report of the Institute of Library Research. It covers the activities of the Institute during a period of completion of several projects and initiation of other projects, both new and continuing.

ANNUAL REPORT  
JULY 1968 - JUNE 1969

INTRODUCTION

This is the report on the fourth year of full-scale operation of the Institute of Library Research.

The projects undertaken during this period have continued to fall within five broad areas: (1) values in library and information service, (2) library and information systems, (3) methodology research, (4) information services development, and (5) social and professional issues.

Values in Library and Information Service

This program has been concerned with the social and scholarly environment of the library and other information activities. What goals are to be served? How can the quality of library collections be assessed? How are books and information used? What are the criteria for the design of library systems? What is the value of library services in education, research, and management, and how can it be measured? What is the relationship between the value of services and the response time of them? What are the problems in gaining acceptance of new services, both by the library and its users, and how can they be solved?

Specific studies in this area during the past year have included a study of criteria for evaluation of library effectiveness and a study of the users of a large public library.

### Library and Information Systems

This program has been concerned with the nature of library and information systems, the definition of their components and of the interrelationships of those components at various levels--local, university-wide, regional, and national. Characteristic projects in this area have included the analysis of present library organizations, experimentation with new or alternative forms and types of services, and the development and evaluation of new systems.

### Methodology Research

This program has been concerned with the development of basic methods by which libraries and information systems can be designed and evaluated. Characteristic projects have studied the tools for development of vocabulary, for file indexing and organization, for cost accounting in information activities, for the measurement of file effectiveness, for definition of user needs, for evaluation of equipment and physical facilities, for the organization of catalogs, for the evaluation of library mechanization programs.

### Center for Information Services

This program has been concerned with the development of a general purpose capability for providing computer-based information services within the library, which can be utilized by any university activity desiring to establish an information center, together with research into the problems involved in such a capability. A Center for Information Services will mobilize the intellectual facilities (knowledge of computer programs for language data processing, of man-machine communication

problems, of analysis and simulation based on data files) of the campus for experimentation with advanced services that are being encompassed by university libraries.

### Social and Professional Aspects

This program has been concerned with the professional and social aspects of librarianship. It is intended to support and extend the programs of the library schools through joint faculty appointments and the employment of students as research assistants. The Institute has experimented with the development of new curricula; it has sponsored conferences, symposia, seminars, and special courses in cooperation with University Extension. In addition, funds have been separately sought to offer advanced post-graduate training programs for practicing librarians and fellowships to bring experienced persons to the Institute for work on specific research projects. It has undertaken a research project concerning problems in education for librarianship.

### ADMINISTRATION

Administratively, the Institute consists of two main branches, one at Los Angeles and one at Berkeley, and the Task Force Project, centered at Berkeley. Figure 1 is an organization chart showing this structure. Within it, the administration is organized basically along project lines, with heavy use of student research assistants. Figure 2 is a staff list by project, as of 30 June 1969.

FIGURE 1

University of California  
Institute of Library Research

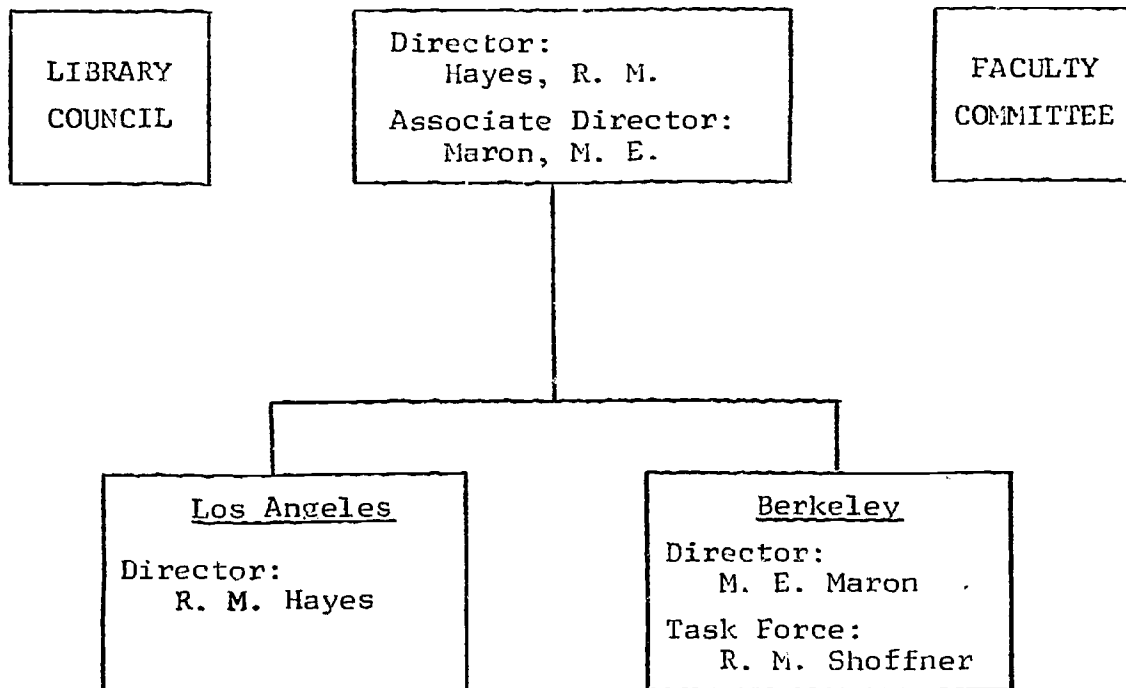




FIGURE 2

FILE ORGANIZATION (National Science Foundation)

<u>Name</u>	<u>Position</u>
Stuart Beal	Statistician
Henry Garrett	Research Assistant
Christopher Landauer	Programmer
Kevin Reilly	Assistant Researcher
Steven Silver	Programmer
Robert Sniffin	Research Assistant
Andrew Whaling	Research Assistant

HANDBOOK OF DATA PROCESSING (Council on Library Resources)

<u>Name</u>	<u>Position</u>
Joseph Becker	Consultant
Fred Bellomy	Librarian
Nancy Brault	Librarian
Diana Burkhardt	Consultant
Charles Gallant	Research Assistant
Sue Hattori	Research Assistant
Helen Meek	Consultant
Ida Riordan	Programmer
Ramon Rosario	Coder
Robert Sniffin	Research Assistant
Cynthia Stolz	Research Assistant

EXTENSION COURSES (State Technical Services)

<u>Name</u>	<u>Position</u>
John Fitz	Program Coordinator

CATALOGING PRINCIPLES (Office of Education)

<u>Name</u>	<u>Position</u>
Seymour Lubetzky	Professor
Nancy Brault	Librarian

FIGURE 2 (Continued)

LIBRARY USE (Los Angeles Public Library)

<u>Name</u>	<u>Position</u>
Jerome Cushman	Senior Lecturer
Carol Bedoian	Research Assistant
Larry Profant	Research Assistant

NEEDS FOR RESEARCH IN LIBRARY & INFORMATION SCIENCE EDUCATION  
(Office of Education)

<u>Name</u>	<u>Position</u>
Harold Borko	Professor
Carol Bedoian	Research Assistant
Nancy Brault	Librarian
Kevin Reilly	Assistant Researcher
Cynthia Stolz	Research Assistant

EFFECTIVENESS CRITERIA FOR MEDICAL LIBRARIES (National Library of Medicine)

<u>Name</u>	<u>Position</u>
Harold Borko	Professor
Stuart Beal	Statistician
Edward Evans	Professor

PHYSICAL FACILITIES RESEARCH (Federal Library Committee)

<u>Name</u>	<u>Position</u>
Edward Evans	Professor
Peter Kamnitzer	Professor
Sam Scheele	Consultant
Thomas Vreeland	Professor

FIGURE 2 (Continued)

FILE ORGANIZATION (Office of Education)

<u>Name</u>	<u>Position</u>
Arjun Aiyer	Research Assistant
Marcia Bates	Junior Specialist
Kelley Cartwright	Assistant Specialist
Jay Cunningham	Associate Specialist (Also on C.S.L.)
Jorge Hinojosa	Junior Specialist
Luke Howe	Junior Specialist (Also on C.S.L., T.F., & UCUCS)
Ashok Kulkarni	Research Assistant
Luch Liang	Research Assistant (Also on C.S.L.)
Mary Poole	Research Assistant
John Reinke	Programmer
Vikas Sahasrabudhe	Research Assistant (Also on C.S.L.)
Will Schieber	Assistant Specialist
Irene Travis	Assistant Specialist (Also on T.F.)

CALIFORNIA STATE LIBRARY PROCESSING CENTER

<u>Name</u>	<u>Position</u>
Patricia Barkley	Editor (Also on F.O., T.F., & UCUCS)
Deborah Barrett	Assistant Specialist (Also on N.S.F., C.L., T.F., & UCUCS)
Ruth Dunham	Junior Specialist (Also on F.O., T.F., & C.L.)
Ann Giglioli	Junior Specialist (Also on F.O., T.F., & UCUCS)
Martin Fried	Programmer (Also on T.F.)
Thomas Hargrove	Assistant Specialist (Also on UCUCS)
Ugertha Hodges	Senior Coder (Also on F.O., & UCUCS)
Robert Randolph	Research Assistant
Jorge Rodriguez	Junior Specialist (Also on F.O.)
Maxine Sansing	Senior Coder (Also on F.O., T.F., & UCUCS)
Donald Sherman	Specialist (Also on UCUCS)
Roy Torkington	Junior Specialist (Also on T.F., & F.O.)

FIGURE 2 (Continued)

TASK FORCE

<u>Name</u>	<u>Position</u>
Diane Kristell	Research Assistant (Also on C.L., F.O., C.S.L., & N.S.F.)
Gary Matkin.	Research Assistant (Also on C.L., F.O., & UCUCS)
Janet Redd	Research Assistant (Also on F.O.)
Ralph Shoffner	Specialist and Head, Operations Task Force

CONTEXT (National Science Foundation)

<u>Name</u>	<u>Position</u>
Laura Gould	Programmer
Ruth Patrick	Junior Specialist (Also on C.L. & C.S.L.)
Pepe Siy	Research Assistant
Stephen Smith	Associate Specialist (Also on C.L. & F.O)
Keith Stirling	Research Assistant (Also on C.S.L. & F.O.)
Nancy Voigt	Junior Specialist (Also on F.O. & UCUCS)

COMPUTER LAB

<u>Name</u>	<u>Position</u>
Jean Circiello	Research Assistant
Edith Darknell	Junior Specialist
Constance Farrow	Junior Specialist
Marco Fiorello	Research Assistant
Allan Humphrey	Specialist
Katsuhiko Kurano	Coder (Also on C.S.L., (Also on C.S.L., N.S.F., F.O., & T.F.)

FIGURE 2 (Continued)

COMPUTER LAB (Continued)

<u>Name</u>	<u>Position</u>
Lauro Lazo	Research Assistant
Joseph Meredith	Associate Specialist
Rodney Randall	Programmer
Chakravarthi Ravi	Programmer
Betty Robinson	Research Assistant (Also on C.S.L., N.S.F., & F.O.)
Howard White	Junior Specialist
Helen Yen	Junior Specialist

UNIVERSITY OF CALIFORNIA UNION CATALOG SUPPLEMENT UCUCS

<u>Name</u>	<u>Position</u>
Margaret Ely	Programmer
William Harrelson	Programmer
JoAnne MacDonald	Bibliographer II
Harriet Zais	Junior Specialist (Also on T.F., F.O., & C.S.L.)

## RESEARCH PROJECTS

The research projects of the Institute have been directed at a number of basic problems in information retrieval, file organization, and library systems.

### Measurement of File Operating Effectiveness (Completed during year)

#### Administrative.

Principal Investigator: Professor R. M. Hayes, UCLA  
Co-Principal Investigator: Professor T. S. Motzkin, UCLA  
Sponsoring Agency: National Science Foundation  
Period: 7/1/1965 to 6/30/1967 (extended to 6/30/1969)  
Amount: \$62,200

Purpose. The purpose of this research project has been to develop a set of analytical tools by which to measure the performance of file systems. The problems considered are as follows:

- (1) The criterion for measurement of performance of a file system
- (2) The measurement of "information"
- (3) The effects of error (or uncertainty) in the data
- (4) The effects of a priori structure in the vocabulary for description of data
- (5) The effects of various methods for file organization and search.

In the study, cost-effectiveness (in the form  $CT/N$ , where  $C$  is the cost of the file system,  $T$  is the response time from it, and  $N$  is the "amount of information" provided) is taken as the primary criterion for measurement of performance. "Information" is measured by a generalization of the traditional Shannon measure in order to take proper account of more complex processes for generating "information" than simple data transfer.

The effects of error are handled by varying the amount of output provided. The effects of a priori structure are handled by decomposition of the vocabulary. The effects of file organization and search are being studied by simulation.

#### Reports.

Reilly, K. D. Digital Computer Simulation Models of Library-Based Information Retrieval Systems, Institute of Library Research, University of California, Los Angeles, January 30, 1969.

Reilly, K. D. The Library and Human Memory--Simulation Studies, Institute of Library Research, University of California, March 26, 1969.

Reilly, K. D. User Determination of Library Request Presentation--A Simulation, Institute of Library Research, University of California, Los Angeles, March 31, 1969.

Hayes, R. M. Measurement of File Operating Effectiveness (Final Report), Institute of Library Research, University of California, Los Angeles, February 19, 1969.

#### Context Information Processing (Completed During Year)

##### Administrative.

Principal Investigator: Professor M. E. Maron

Project Manager: R. N. Shoffner

Sponsoring Agency: National Science Foundation

Period: 7/1/1967 to 6/30/1968, extended to 6/30/1969

Amount: \$85,000.

Purpose. The premise of this study is that neither the information conveyed by a document nor the information needs of a library patron can properly be identified solely on the basis of index tags (subjects, e.g.). There are important additional data about each and about the relationship between the two which can be obtained only from an analysis of their context. If context information were identified, formalized, acquired,

and stored, it could then be used to enhance both traditional and mechanized search techniques. The approach to this issue has been to study the use of background information about authors (their affiliation, colleagues, etc.), journals (their policies, subject emphasis, etc.), cited papers, and so on in order to determine how such data might be processed in a literature searching system.

#### Reports.

Maron, M. E. and Shoffner, R. M. The Study of Context: An Overview, Institute of Library Research, University of California, Berkeley, January 1969.

Smith, S. F. and Shoffner, R. M. A Comparative Study of Mechanized Search Languages, Institute of Library Research, University of California, Berkeley, January 1969.

Gould, L., Barrett, D. D., and Shoffner, R. M. An Experimental Inquiry Into Context Information Processing, Institute of Library Research, University of California, Berkeley, January 1969.

#### Development of a Center for Information Services Phase II: Detailed System Design and Program (Initiated During Year)

##### Administrative.

Project Director: Professor R. M. Hayes

Co-Principal Investigators: Professor Robert Vosper  
Mr. William B. Kehl

Sponsoring Agency: National Science Foundation

Period: 7/1/1969 to 12/31/1971

Amount: \$208,400.

Purpose. The National Science Foundation, Office of Science Information Services, has awarded a grant of \$208,400 to the Institute of Library Research of the University of California for the next step in the development of a "Center for Information Services". The purpose of the Center is to provide a capability, in the University Library, to acquire magnetic tape data bases of a variety of kinds and, in cooperation



with the Campus Computing Network, to provide various kinds of mechanized information services from them to the University community. The purpose of the work under the present grant will be to develop specifications for the Center, programs for the use of multiple data bases, and experimental experience with mechanized information services during the next year and a half.

Principles of Cataloging, Phase I: Descriptive Cataloging (Completed During Year)

Administrative.

Principal Investigator: Professor S. Lubetzky

Sponsoring Agency: Office of Education

Period: 6/15/1967 to 12/14/1968, extended to 6/30/1969

Amount: \$56,300

Purpose: This project is directed at a historical and theoretical investigation of the fundamental aspects of descriptive and subject cataloging: the purposes to be served, the problems involved, and the principles which should underlie a cohesive, rational, and purposeful cataloging system. The purposes of present cataloging practices have not been uniformly understood and the problems have not been recognized or treated consistently. Even the newly revised Anglo-American Cataloging Rules have been restricted and forced into compromises by prevailing conditions and deep-seated traditions. The study is aimed at formulating principles which are both rational and consistent with the historical development of cataloging practice.

Reports.

Lubetzky, S. and Hayes, R. M. Bibliographic Dimensions in Information Control: Report 1 of a Series on the Principles of Cataloging, Institute of Library Research, University of California, Los Angeles, October 1, 1968.

Lubetzky, S. The Author and Title Catalog in the Library: Its Role, Function, and Objectives: Report 2 of a series on the Principles of Cataloging, Institute of Library Research, University of California, Los Angeles, January 1969.

Lubetzky, S. Descriptive Cataloging: Problems and Principles: Report 3 of a series on the Principles of Cataloging, Institute of Library Research, University of California, Los Angeles, April 1, 1969.

Lubetzky, S. Principles of Cataloging: Final Report of a series on the Principles of Cataloging, Institute of Library Research, University of California, Los Angeles, July 1969.

Organization and Search of Bibliographic Holdings Records in On-Line Computer Svstems (Completed During Year)

Administrative.

Principal Investigator: Professor M. E. Maron

Project Director: R. M. Shoffner

Sponsoring Agency: Office of Education

Period: 7/1/1967 to 6/30/1968 - Phase I

Amount: \$179,000.

Purpose. The purpose of this project was to study the problems of file organization for on-line system designed for the interrogation of very large files of bibliographic records. As part of the study, a data base of bibliographical records is being created in machine form. Experiments are being designed to test various methods of file organization for an on-line interrogation system.

Reports.

Silver, Steven S. A Format Manipulation System with Macros and Text File Management: A Program for Producing Documents Containing Natural Language Text in Upper and Lower Case Using the IBM 360 model 20 Computing System and Other Models of the IBM System/360, Institute of Library Research, University of California, Los Angeles, October 8, 1968.

Silver, Steven S. INTX: Interactive Assembler Language Interpreter Under URSA, Institute of Library Research, University of California, Los Angeles, July 9, 1969.

Cunningham, J. L., Schieber, W. D., and Shoffner, R. M. A Study of the Organization and Search of Bibliographic Holdings Records in On-Line Computer Systems: Phase I., Institute of Library Research, University of California, Berkeley, March 1969.

### DEVELOPMENT PROJECTS

The development projects of the Institute have been of special importance because of the interests of the Library Council and of the Librarians on each campus in the use of mechanization in the libraries of the University. To an extent, the need for development of mechanized clerical systems was one of the reasons for establishing the Institute in the first place. Since then, the rate of progress in libraries throughout the country has been accelerating. Library networks are being created within several states and among confederations of universities. The development work of the Institute has been at the forefront of this effort.

#### Operations Task Force Project (Continuing)

##### Administrative.

Project Director: R. M. Shoffner  
Sponsoring Agency: University of California  
Period: 3/1/1965 - continuing  
Amount: Budgeted from year-to-year

Purpose. The libraries of the University of California have been faced with many urgent problems for which generally applicable solutions must be found as soon as possible. The Operations Task Force Project was established to provide a State-wide agent for development of methods

compatible with the needs of each campus, but applicable university wide. Examples of the problems with which the Operations Task Force Project has been concerned include: (1) coordination of campus-based programs for mechanization, (2) inter-campus circulation studies, (3) methods for producing supplements to the university wide book catalog. A major effort has been devoted this year to development, in cooperation with the librarians and library systems staff of the nine campuses, of a concerted program for library mechanization.

#### Reports.

Shoffner, R. M. Operations Task Force Project Status Report and Budget, Institute of Library Research, University of California, Berkeley, October 31, 1968.

Zais, H. The University of California Supplement Union Catalog--An Estimate of Manual Production, Institute of Library Research, University of California, Berkeley, August 1968.

Hayes, R. M. and Shoffner, R. M. Mechanization in the Libraries of the University of California (Draft), Institute of Library Research, University of California, Los Angeles, February 28, 1969.

#### Handbook of Data Processing (Completed During the Year)

##### Administrative.

Principal Investigator: Professor R. M. Hayes

Sponsoring Agency: Council on Library Resources

Period: 7/1/1965 to 12/13/1967, extended to 12/31/1968

Amount: \$68,000.

Purpose. The purpose of this project is the preparation of a Handbook of Data Processing for Libraries, to communicate the economic and operational significance which mechanization has for libraries. It is designed to assist librarians and library system analysts in determining whether and how to apply these techniques to their own library. It relates the characteristics

of library requirements to those of available equipment. It is organized into five sections: (1) an introduction that presents the historical context and the general implication of mechanization for libraries, (2) the management of data processing development for libraries, (3) the characteristics of equipment, (4) analyses of the economics of mechanization of various clerical tasks in libraries, and (5) analyses of the role of mechanization in information services of libraries.

Reports.

Hayes, R. M. and Becker, J. Review Draft of the Handbook of Data Processing for Libraries, Institute of Library Research, University of California, Los Angeles, January 1969.

University of California Union Catalog Supplement

Administrative.

Project Director: R. M. Shoffner

Project Manager: D. Sherman

Sponsoring Agency: University of California

Period: 11/1/1968 to 12/31/1970 in two phases

Amount: \$650,000.

Purpose. During the period 1963-1967, the libraries of the University acquired over 1,200,000 titles which were new to the individual nine campuses. The purpose of this project is to produce a book form Union Catalog by converting the bibliographic records of these new holdings to machine form and using computer techniques for its production. It is estimated that the Catalog will contain over 800,000 unique entries.

To achieve maximum value and re-use of the machine record, the project is committed to producing a MARC-compatible record, both as to structure and content. The machine record is created by an approach termed

Automatic Field Recognition. In this system, no pre- or post-editing or tagging schemes are required; instead, computer algorithms work with the natural format of the catalog card to identify MARC-defined bibliographic data elements.

### EDUCATION PROJECTS

A major part of the program of the Institute of Library Research is the advancement of education in librarianship, information science, and documentation. In part, the extent of the commitment of the Institute to education is represented by the heavy use of students on projects as research assistants. They have come from business administration, from mathematics, from engineering, from English, and from other departments, as well as from the two library schools. More specifically, however, the Institute has been responsible for a number of projects designed to meet an educational requirement.

#### Education of Medical Library Systems Analysts (Continuing)

##### Administrative.

Project Director: Professor R. M. Hayes

Other Faculty: Professor H. Borko

Sponsoring Agency: National Library of Medicine

Period: 7/1/1970 to 6/30/1975

Amount: \$520,641.

Purpose. The increasing demand for greater information services to medicine has led the National Library of Medicine to undertake a number of revolutionary steps--mechanization of publication of Index Medicus, mechanized retrieval services through its MEDLARS system, sponsorship of

of regional medical library, and planning for development of a national medical information system. The result is a great and unmet demand for personnel who combine knowledge of librarianship with expertise in systems analysis and application of computers. The purpose of this project is to educate students with this combination of knowledge. The degree program for Master of Science in Information Science (Documentation) provides the general framework. It is supplemented by internships (as research assistants) in the Institute of Library Research.

#### Reports.

Cabaniss, Margaret. Using the Computer for Text Collation: Problems, Studies, and a Method for Solution, Master's Thesis, University of California, Los Angeles, 1968.

Pearson, Karl. Providing for Machine-Readable Statistical Data Sets in Research Libraries, Master's Thesis, University of California, Los Angeles, 1968.

Eaton, Clyde B., Jr. Cost Analysis of Library Service to On-Campus and Off-Campus Clients of a University Research Library, Master's Thesis, University of California, Los Angeles, 1969.

Lane, Nancy. Maximum Utilization of Audio-Visual Materials in the Public Schools through Computer Booking, Master's Thesis, University of California, Los Angeles, 1969.

Profant, Lawrence M. Simulation as a Tool for Information Systems Design, Master's Thesis, University of California, Los Angeles, 1969.

Hayes, R. M. Education in Information Science; Number 2 of a Series of Reports on Education for Information Science (Documentation), Institute of Library Research, University of California, Los Angeles, February 27, 1969.

#### Research in Information Science (Completed During Year)

##### Administrative.

Project Director: Professor Harold Borko  
Sponsoring Agency: System Development Corporation  
Period: 7/1/1966 to 8/31/1968 completed  
Amount: \$2,500.

Purpose. System Development Corporation is an agency with extensive needs for personnel with education in the techniques of information systems analysis. They have therefore provided both direct and indirect support of students in the Master of Science in Information Science (Documentation) program.

An Information Processing Laboratory for Education and Research in Library Science

Administrative.

Principal Investigator: Professor M. E. Maron

Project Manager: A. J. Humphrey

Associate Project Manager: J. C. Meredith

Sponsoring Agency: Office of Education

Period: 6/15/1967 - 12/14/1968 Phase I

12/15/1968 - 3/14/1970 Phase II

Amount: \$141,763 Phase I

\$200,000 Phase II.

Purpose. It is the objective of this project to design, implement, operate, and evaluate a computer-based laboratory that is to assist in meeting the educational and research needs of students in librarianship. The laboratory functions in an on-line, interactive setting provided by a network of remote terminals (both mechanical and cathode ray tube) linked to a central digital computer. Software developed to date emphasizes the demonstration and teaching of formal methods of intellectual access to stored information in addition to use of the computer in instructing students in topics of traditional librarianship.

Reports.

Maron, M. E., Humphrey, A. J., and Meredith, J. C. An Information Processing Laboratory for Education and Research in Library Science: Phase I (in preparation).



Extension Courses in Support of Information Transfer in Science and Technology

Administrative.

Principal Investigator: Professor R. M. Hayes

Extension Coordinator: Dr. John Fitz

Sponsoring Agency: Department of Commerce

Period: Phase 1: 4/1/1966 to 6/30/1967

Phase 2: 7/1/1966 to 12/31/67

Phase 3: 1/1/1967 to 6/30/1969 terminated 12/31/1968

Amount: Phase 1: \$19,000 (plus equal matching funds from University Extension, fees, and other sources)

Phase 2: \$44,000 (plus equal matching funds from University Extension, fees, and other sources)

Phase 3: \$68,000 (plus equal matching funds from University Extension, fees, and other sources)

Purpose. The State Technical Service Program of the Department of Commerce was established to aid the transfer of scientific and technical information to small business and industry. Among its objectives are the sponsoring of extension courses designed to acquaint businessmen with the sources of such information. The purpose of this project of the Institute has been to develop such courses (Phase 1), experiment to determine the best means of presenting them to the desired audience (Phase 2), and then support the presentation of them throughout the state (Phase 3). Decision was made by University Extension not to continue operation of Phase 3 despite the continuing interest on the part of the Department of Commerce and the Institute in doing so.

Reports.

Hayes, R. M. A Proposal to the Secretary of Commerce for Support of a Program under the "State Technical Services Act of 1965", Institute of Library Research, University of California, Los Angeles, 1966.

A Study of the Needs for Research in Library and Information Science Education (Initiated During Year)

Administrative.

Project Director: Professor H. Borko  
Sponsoring Agency: U. S. Office of Education  
Period: 4/24/1969 to 4/30/1970  
Amount: \$54,109.00

Purpose. The purpose of this study is to determine the needs for research in education for librarianship, including consideration of library and information science. It was submitted to the Office of Education with the sponsorship of the American Association of Library Schools, as a means for establishing guidelines and recommended priorities for such research.

Reports.

Borko, H. A Proposal to Study the Needs for Research in Library and Information Science Education, Institute of Library Research, University of California, Los Angeles, December 31, 1968.

Reilly, K. D. Author's Guide and Style Manual for the Study of the Needs for Research in Library and Information Science Education, Institute of Library Research, University of California, Los Angeles, June 15, 1969.

PUBLIC SERVICE

The Institute of Library Research has, from its beginning, provided a large degree of "public service"--through projects designed to serve libraries of the State of California, through discussions with people from throughout the world, and through extensive participation of its staff in professional activities. The list of talks given by Institute staff members during the past year alone contains over one hundred entries. The list of foreign visitors to the Institute during the past year contains over thirty entries.

California State Library Processing Center

Administrative.

Principal Investigator: Dean R. C. Swank

Project Director: R. M. Shoffner

Project Manager: D. Sherman

Sponsoring Agency: State Library of the State of California

Period: 6/21/1967 to 5/31/1969

Amount: \$97,000

Purpose. To develop detailed specifications for a computer based Processing Center to serve a network of public libraries throughout California. The specifications include system design, program layout, cost analysis and plan for staffing, software development, and initial production. Conversion of retrospective holdings and generation of book form catalogs form the nucleus of the system.

Reports.

Sherman, D. and Shoffner, R. M. California State Library: Processing Center Design and Specifications (3 volumes), Institute of Library Research, University of California, Berkeley, April 1969.

Dunham, R. and Fried, D. California State Library: Processing Center Design and Specifications: Serials (volume 4), Institute of Library Research, University of California, Berkeley, (in preparation).

Hargrove, T. L., Sherman, D., and Shoffner, R. M. California State Library: Processing Center Design and Specifications, Cost/Performance Analysis (volume 5), Institute of Library Research, University of California, Berkeley, (in preparation).

## Library Utilization

### Administrative.

Principal Investigator: Professor R. M. Hayes

Co-Principal Investigator: J. Cushman

Sponsoring Agency: Los Angeles Public Library

Period: 6/28/1968 to 11/29/1968

Purpose. The purpose of the study is to develop a quantitative picture of the users of the main library--what they want from it, where they come from, and when they use it. A questionnaire was prepared and users of the library were interviewed (both, with the cooperation of the Survey Research Center at UCLA).

### Reports.

Cushman, J. and Hayes R. M. Analysis of Usage of the Central Library of the Los Angeles Public Library: Comprehensive Final Report of the Series on A Survey of the Users of the Los Angeles Central Library (including reports 1, 2, 3, and 4), Institute of Library Research, University of California, Los Angeles, October 14, 1968.

Cushman, J. and Hayes, R. M. Seasonal Variation in Usage: Report 5 of the Series on A Survey of the Users of the Los Angeles Central Library, Institute of Library Research, University of California, Los Angeles, November 25, 1968.

## Physical Facilities Research Project (Initiated During Year)

### Administrative.

Project Director: Professor G. Edward Evans

Other Faculty: Professor R. M. Hayes  
Professor Peter Kamnitzer  
Professor Thomas Vreeland

Sponsoring Agency: Federal Library Committee

Period:

Amount: \$2,450.

Purpose. To develop a research design for development of techniques for design of physical facilities for Federal Libraries in general, including an investigation of current practices concerning the design of physical facilities for libraries and the methods of equipping and furnishing these facilities.

Reports.

Evans, G. E., Scheele, S., and Vreeland, T. Methods of Library Building Design--A Research Plan, Institute of Library Research, University of California, Los Angeles, June 30, 1969.

Effectiveness Criteria for Medical Libraries (Initiated During Year)

Administrative.

Project Director: Professor G. Edward Evans

Other Faculty: Professor H. Borko

Sponsoring Agency: National Library of Medicine

Period: 8/1/1969 to 1/31/1970

Amount: \$6,974.

Purpose. Phase I of this study of criteria relating to the effectiveness of medical library service will provide an evaluation of existing criteria based on a review and analysis of results as reported in earlier studies. A specific example, that of "Document Delivery Test", (DDT) as reported in the UCSC's Final Report-National Survey of Medical School Libraries. This study is one on which particular attention will be focussed. Analysis will be made of the data relating to DDT for its reliability and correlation with other criteria.

Reports.

Evans, G. E. Effectiveness Criteria for Medical Libraries--Phase One, Institute of Library Research, University of California, Los Angeles, May 28, 1969